

A Roadmap to Mental Health Services for Transition Age Young Women: A Research Review

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Lynne Marsenich, LCSW April 4, 2005

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Foreword

The California Women's Mental Health Policy Council (WMHPC) is pleased to provide A Road Map to Mental Health Services for Transition Age Young Women: A Research Review. The WMHPC is dedicated to improving services for California's multicultural population of women and girls. Last year the WMHPC published: Gender Matters in Mental Health: An Initial Examination of Gender-Based Data. The research for that report disclosed some important policy considerations. Women under the age of 40 are less likely than men to receive mental health services, and girls in particular are less likely to be served. Programs such as AB3632, which provides mental health services for youth in special education, and Children's System of Care: An Interagency Enrollee Based program, serve far fewer girls than boys. This information led the WMHPC to search for appropriate models for serving girls and to focus on transition age girls, in the hope that during this vulnerable and formative time of life, appropriate mental health services might be provided for more girls.

Sadly, the research found a paucity of models that are both evidence-based and that target the needs of these youth. However, this report does identify outstanding programs, promising models and important gender-sensitive risks and resiliencies, all of which provide a "road map" for policy makers and managers in mental health services .

With the passage of Proposition 63, the Mental Health Services Act, we have an opportunity for creating a new agenda for mental health services in California, and also to act on that agenda. Increasing gender-sensitive, culturally competent services for girls must be a part of that agenda. This report is offered as a resource and guide in this opportunity for substantial progress in mental health services.

The WMHPC would like to thank Lynne Marsenich, the author of this report for her dedication and determination; our committee of reviewers, and our staff.

Thank you for taking the time to review this material.

Beverly K. Abbott, LCSW

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Executive Summary

A Roadmap to Mental Health Services for Transition Age Young Women: A Research Review was sponsored by the California Women's Mental Health Policy Council (WMHPC), in collaboration with the California Institute for Mental Health (CIMH). The WMHPC, founded in 1999, is a statewide nonpartisan membership organization, with a mission to ensure effective, gender-specific, culturally appropriate mental health services for women and girls. CIMH promotes excellence in mental health services, emphasizing research and educational activities based on scientifically proven mental health treatments and services.

The report focuses specifically on the mental health needs of adolescent girls and young adult women, sometimes referred to as "transition age" women, as they move through adolescence to adulthood. The primary purpose of the report is to highlight the evidence from the social science literature regarding mental health treatments and practices that are most efficacious for transition age women.

The report includes: (a) information about specific mental health problems which disproportionately affect young women, (b) evidence from the social science literature on mental health interventions focused on young women, (c) analysis of evidence-based interventions most likely to enhance young women's successful transition to adulthood, and (d) implications for mental health service delivery.

Gender and Mental Health Service Utilization

There is clear evidence that transition age young women tend to fare more poorly than their male counterparts, with more sexual assaults, single parenthood, and homelessness, under employment and unemployment, and suicide attempts. Moreover, this vulnerable group is often neglected in social and mental health service systems. Unfortunately, there has been only limited research conducted on the outcomes of gender-specific programs and interventions.

A growing body of evidence indicates that transition age women are not accessing mental health services at the same rates as their male counterparts, despite demonstrated need. Mental health problems in girls tend to be identified later than in boys, or in some instances, are missed altogether. The knowledge levels of "gateway" service providers—primary health, child welfare, juvenile justice, and education professionals—about the specific mental health service needs of adolescent girls and young women are primary predictors of mental health service use.

Understanding developmental stages and milestones is a prerequisite for effective mental health interventions for adolescent girls and young women. Clinicians who work with young women not only need to address the presenting problem but also the normative skills their clients may have failed to develop as a consequence of having an emotional or behavioral disorder during this critical developmental phase.



Understanding developmental stages and milestones is a prerequisite for effective mental health interventions for adolescent girls and young women.



Mental health prevention research has yielded greater understanding of the conditions, or risk factors, which can lead to many of the mental health problems young women face. Protective factors are the personal, social and institutional resources that foster development of resiliency in youth and promote successful adolescent development or buffer risk factors that might otherwise compromise development. Programs should focus on the risk factors most likely to impact girls and build on the protective factors most likely to promote resiliency. Substantial research exists, and is highlighted in the full report, on the risk and protective factors for adolescents and to some extent those specifically

relevant for adolescent girls and young women. Mental health and social service practitioners need to be more aware of these factors as they choose and develop interventions for transition age women.

Trauma and Young Women: Prevalence and Implications

Trauma — exposure to emotionally painful or shocking events with lasting effects — is implicated as a risk factor for virtually all psychiatric diagnoses affecting young women, including substance abuse. In addition, the early results from research on juvenile delinquency suggest that trauma may be the pathway to delinquency for girls.

Researchers have found extremely high rates of interpersonal violence and victimization among adolescents. Researchers have also found a higher prevalence of all types of victimization among African American and Native American adolescents. Girls are more likely to have experienced sexual assault than boys, but boys are at significantly greater risk of experiencing physical assault. A substantial number of all adolescents report having witnessed violence and rates of physically abusive punishment are similar for both genders.

Although there is still limited information about the connection between trauma and mental health problems in transition age women specifically, the evidence increasingly supports a pattern for young women similar to the known impacts of trauma in adult women. The connection between substance abuse, mental health problems and trauma for adult women receiving substance abuse and/or mental health treatment is well established.

Acute traumatic stress in young women is associated with Posttraumatic Stress Disorder (PTSD), depression, substance abuse, health risking sexual behaviors and health-related problems. Adolescent girls are six times more likely than males to be diagnosed with PTSD following exposure to violence. Victims of sexual assault also report high levels of depression, anxiety and substance abuse. Sexual violence may have a detrimental developmental impact on educational, occupational and relationship functioning. Interpersonal violence increases the risk of PTSD, major depression, substance abuse and dependence and comorbidity.

In addition, childhood victimization seems to increase the chances of further trauma because young women do not fully develop the social cognitions — safe behaviors and ability to perceive danger — that would protect them from further victimization.

Treatment Implications. The research strongly suggests that clinicians working with young women who have been exposed to trauma should evaluate them for PTSD, major depression and substance abuse. Research findings also suggest that identifying, challenging and modifying inadequate social cognitions may help to reduce risky behaviors and revictimization in young women with a history of trauma.

Girls in the Juvenile Justice System

Statistics show that more girls are becoming involved in the justice system, at younger ages, and for more violent offenses. Girls from ethnic minority groups are disproportionately represented, and female delinquents have fewer placement options than their male peers in the juvenile justice system.

Females in the juvenile justice system have specialized mental health treatment needs. Studies indicate that female juvenile offenders have greater exposure to trauma, a greater incidence of mental health problems than male juvenile offenders and higher incidences of physical, emotional and sexual abuse, physical neglect, and family history of mental illness than their male counterparts.

Treatment. Effective mental health treatments for youth in the juvenile justice system need to be highly structured, emphasize the development of basic skills, and provide individual counseling which addresses behaviors, attitudes and perceptions. Cognitive behavioral approaches have been shown to be the most effective treatments for youth in the juvenile justice system, particularly those with trauma-related problems. Interventions that involve the family in treatment and rehabilitation have been shown to be more successful than usual care in decreasing subsequent arrests, self-reported delinquency and time spent in institutions. Interventions should positively impact a young woman's relationships with her family and other supportive adults, peer culture, school and community.

Dialectical Behavior Therapy (DBT) is a modification of Cognitive Behavioral Therapy (CBT) designed specifically for individuals with self-harm tendencies, including those exhibiting suicidal tendencies and behaviors. Research on the effectiveness of DBT with female juvenile offenders has shown that DBT is most effective with an intensive training program, motivated staff, and female juvenile offenders who exhibit the types of parasuicidal and aggressive behavior that DBT targets.

Evidence suggests that it is important to involve family members in treatment and rehabilitation of juvenile delinquents. Three family interventions were highlighted as model programs in the 2001 Surgeon General's report *Youth Violence* — Functional Family Therapy (FFT), Multisystemic Therapy (MST) and Multidimensional Treatment Foster Care (MTFC). While the outcomes for all three interventions demonstrated effectiveness in reducing juvenile offending and increasing parental competencies, only MTFC has been specifically adapted for intervention with girls. MTFC is a community and family-based alternative to residential and group care for youth with behavioral, emotional and mental health problems.

Posttraumatic Stress Disorder

A relatively small portion of those who experience a traumatic event suffer from PTSD as a result. However, women are twice as likely as men to have PTSD at some point in their lives. For women, the most common events precipitating PTSD are rape, sexual molestation, physical attack, being threatened with a weapon, and childhood physical abuse.

Treatment. There are currently no treatments for PTSD developed for or tested specifically on adolescent girls or young women. However, given the high prevalence of PTSD in women, most of the participants in clinical trials have been female. Cognitive Behavioral Therapy is the most efficacious treatment for PTSD. Exposure therapy, a form of CBT unique to trauma treatment, uses carefully repeated, detailed imagining of the trauma (exposure) in a safe, controlled context, to help the survivor face and gain control of the fear and distress that was overwhelming during the trauma.

Along with exposure, CBT for trauma includes: learning skills for coping with anxiety and negative thoughts, managing anger, preparing for stress reactions (stress inoculation), handling future trauma symptoms, addressing urges to use alcohol or drugs when trauma symptoms occur, and communicating and relating effectively with people. In addition, there have been recent advances in early intervention and in the treatment of disorders that are comorbid with PTSD.

Substance Abuse

While there have been promising declines in adolescent substance abuse in recent years, young girls have been smoking and drinking as much as boys and are catching up in the use of illicit drugs. However, girls are suffering consequences beyond those of boys. Girls and young women use substances for reasons that differ from boys and young men, risk factors are different, and girls and young women are more vulnerable to addiction: they get hooked faster and suffer the consequences sooner than boys and young men. Girls who abuse substances are more likely than boys to be depressed and suicidal and to have eating disorders. In addition, substance abuse increases the likelihood that girls will engage in risky sex or be the victims of sexual assault. Although the research is relatively sparse, several studies have identified differences in substance abuse among girls from different ethnic subgroups.



Girls who abuse substances are more likely than boys to be depressed and suicidal and to have eating disorders.



As in the broader population of substance abusers, high percentages (up to 60 percent) of adolescents have a comorbid diagnosis; most commonly conduct disorder and oppositional defiant disorder, followed by depression. The dual diagnosis of PTSD and substance abuse is common. Untreated trauma symptoms in women hamper

engagement in substance abuse treatment, lead to early drop-out and make relapse more likely.

Treatment. Although the number of curricula and intervention programs specifically addressing the substance abuse treatment needs of girls and young women is increasing, there are still relatively few programs, and very few studies evaluating their effectiveness. The only empirically supported substance abuse treatment for adolescent girls and young women was developed to treat co-occurring PTSD and substance abuse. The program, Seeking Safety, emphasizes clinician selection based on performance and adherence to the model and has four content areas: cognitive, behavioral, interpersonal and case management.

There are two family therapy interventions that have strong empirical support, have developed cultural adaptations for African American and Latino youth and are currently exploring treatments for adolescent girls. Brief Strategic Family Therapy has demonstrated effectiveness for adolescent Latinos and their families. Brief Strategic Family Therapy is a short-term, problem-focused therapeutic intervention, targeting children and adolescents. Multidimensional Family Therapy was adapted for African American youth and their families. Multidimensional Family Therapy is a comprehensive and flexible family-based program designed to treat substance -abusing and delinquent youth.

Depression

One of the most consistent findings in research on depression is the higher prevalence of depression and dsythymia (a mood disorder similar to depression) among women and adolescent girls. Gender differences in depression emerge in early adolescence, between the ages of 11 and 15. Girls and women have consistently higher rates of depression than boys and men, a phenomenon that does not change until old age when gender differences in depression disappear. Research finds evidence of comorbidity with depression for transition age women, as is generally true for males and adult women. For adolescent girls, specific comorbid conditions include anxiety, substance abuse and eating disorders, such as bulimia.

Depression in adolescence is associated with serious psychosocial dysfunction and can have negative effects on functioning into young adulthood. Young adults who were depressed as adolescents are less likely to finish college, tend to make less money, are more likely to become an unwed parent and are more likely to experience a host of stressful life events.

Research reveals some differences among subgroups of transition age women. Lesbians may have an even greater risk for depressive episodes than other women, are at higher risk for developing alcohol dependency than heterosexual women and are more likely to engage in moderate illicit drug consumption. Although women in other ethnic groups experience the same rates of depression as Caucasian women, they are more likely to have their depression either go untreated or be inadequately treated. Research also consistently documents high rates of depressive symptoms among low-income mothers with long-term dramatic consequences for mothers and their children.

Treatment. These findings suggest that when adolescent girls are evaluated and treated for depression they should also be evaluated for the presence of other comorbid conditions. Given the potential negative consequences of depression in adolescents, effective early treatment is imperative.

There are efficacious treatments for depression in adolescent girls and young women. There is a large body of evidence indicating that CBT is an efficacious treatment for young adult and adolescent depression. Antidepressant medications are widely prescribed for adolescents but general practitioners give the majority of prescriptions. Recent evidence that treatment of depressed adolescents with antidepressants is associated with a higher risk of suicide has caused the U.S. Food and Drug Administration (FDA) to issue a "black box warning" to health care professionals.

It is particularly important that if used, medication be combined with careful monitoring and other treatment approaches. The Treatment for Adolescents with Depression Study Team (TADS), sponsored by the National Institutes of Mental Health (NIMH), has demonstrated the efficacy of CBT in combination with antidepressant medication.

Recent study findings suggest that medication interventions may be more effective for low-income, ethnic minority women than psychotherapy interventions. Research also demonstrates that evidence-based interventions appear to be more effective for poor ethnic minority women if they are given support to overcome barriers to care.

Early research findings also suggest that timelimited psychotherapy for depression offers women rapid relief from their symptoms and may prove to be an efficacious treatment for women. There is a growing body of research demonstrating the efficacy of Interpersonal Psychotherapy (IPT) for the treatment of depression. IPT is a brief, highly structured, and manualized psychotherapy that addresses the interpersonal issues in depression. IPT holds that depression occurs within an interpersonal context but does not arise exclusively from interpersonal problems.

Suicide

Suicide is currently the third leading cause of death among 15-to 24-year olds in the United States. Suicide incidence increases markedly in the late teens and continues to rise until the early twenties, reaching a level that is maintained throughout adulthood. Like completed suicides, suicide attempts are relatively rare among children before puberty but increase in frequency throughout adolescence. However, unlike completed suicides, attempts peak between 16 and 18 years of age after which there is a marked decline in frequency particularly for young women. Although suicide ideation and attempts are more common among females, completed suicide is more common among males.

The incidence of youth suicide differs among racial and ethnic subgroups. Youth suicide is more common among whites than African American youths in the U.S, with the highest rates in Native Americans and the lowest rates among Asian Pacific Islanders. A recent study examining suicidality among urban African American and Latino youth demonstrated an association between ethnicity, poverty and suicide. Research also reveals that gay teens are more likely to attempt suicide.

Treatment. Few studies have systematically evaluated interventions aimed at reducing suicidal



Although suicide ideation and attempts are more common among females, completed suicide is more common among males.



ideation and behavior in adolescents and young adults. Only two treatments, neither one of which was gender-specific, meet the criteria for probably efficacious—developmental group psychotherapy and a home-based intervention that included problem-solving and communication.

Eating Disorders

Females comprise the majority of individuals diagnosed with an eating disorder—— anorexia nervosa, bulimia nervosa and binge eating. Eating disorders often co-occur with depression, substance abuse and anxiety disorders and can cause serious health problems. Adolescent girls are at greater risk than those of other ages for developing an eating disorder. In addition, comorbidity is the rule rather than the exception. In general, there are inconsistent findings concerning ethnicity and eating problems.

Treatment. Research on the causes of eating disorders and on effective treatments is in the early stages. There have been some studies with demonstrated good outcomes for the treatment of anorexia and bulimia. Because risk is associated with the developmental period of adolescence and young adulthood and because the consequences, if not treated, can be dire, accurate assessment and treatment of eating disorders is crucial.

To date there have only been three controlled studies demonstrating the efficacy of intervention approaches for eating disorders. An NIMH clinical trial found that CBT was superior to IPT in reducing the symptoms associated with bulimia. A second controlled trial found that both vomiting and bingeing in bulimia were clinically improved by treatment with fluoxetine or a manual-based behavioral program. A combination of the two approaches led to the greatest improvement. The

third study evaluated the efficacy of DBT adapted to the treatment of binge eating and found that women treated with DBT showed decreased binge eating and eating problems.

Premenstrual Dysphoric Disorder

Premenstrual Dysphoric Disorder (PMDD) is diagnosed in approximately 5 percent of menstruating women and is distinguished from the more common premenstrual syndrome (PMS) by more severe symptoms and associated functional impairments. New research demonstrates that women with PMDD have functional disabilities similar to those found with other mood disorders such as depression and dysthymia.

Treatment. Randomized controlled trials focusing on PMDD consistently show that selective serotonin reuptake inhibitor (SSRI) antidpressants are beneficial in treating symptoms. Research indicates that treatment of PMDD is efficacious if medication administration is limited to the luteal phase (the days following ovulation) of the menstrual cycle. The current research on PMDD does not review alternatives to medication such as psychotherapy.

Psychiatric Disorders During Pregnancy

Researchers are currently studying the special problems of treating serious mental illness in women during pregnancy, including transition age women who become pregnant. Although the effect of psychoactive drug treatment on the fetus during pregnancy has received some attention, information about the effectiveness of different pharmocotherapies is still limited. A recent prospective study of newborns whose mothers were treated with Selective Serotonin Reuptake Inhibitors (SSRI's) showed that their infants demonstrated disruption in a wide range of neurobehavioral outcomes including motor activity, startle and heart rate regulation. The American Academy of Pediatrics, Committee on Drugs (2000) provided research-based guidelines to assist physicians with appropriate drug selection for women who are either contemplating pregnancy or are pregnant and who have psychiatric disorders that require drug treatment.

Postpartum Depression

Postpartum Depression (PPD) typically emerges over the first two-to-three postpartum months, but may occur at any point after delivery. Nonpharmacological therapies are useful in the treatment of PPD. Therapy without medication can be an important consideration for women who are breast feeding and unwilling to take medication because of potential harm to their babies. Short-term cognitive-behavioral therapy has been shown to be as effective as treatment with fluoxetine in women with postpartum depression. In addition, IPT has been shown to be efficacious for the treatment of mild-to-moderate PPD. To date, only a few studies have systematically assessed the pharmacological treatment of PPD. In general, conventional antidepressant medications (fluoxetine, sertraline, fluvoxamine and venlafaxine) have been shown to be efficacious in the treatment of PPD.

Young Mothers and Psychiatric Disorders

Under the best of conditions parenting can be stressful for most mothers. However, for a young woman with mental health problems, parenting may overwhelm her coping capacities and result in poor outcomes (including abuse and neglect) for her children. Intervention to help her manage her mental health symptoms and increase her parenting competencies decreases the risk of negative consequences for both mother and children.

Research consistently demonstrates that children of mothers with mental health problems are more likely to live in poverty than children born to mothers without mental health problems and are themselves at risk for developing mental health problems. In addition, the research on depression demonstrates that single, low-income women bear a greater burden of depression than women who are not mothers.

One treatment program, the Nurse-Family Partnership Program, has been shown to produce consistently good outcomes for low-income women and their children through the child's fourth year of life. In comparison to control groups, women who received services from the Nurse-Family Partnership Program, had better prenatal health, lower use of

cigarettes, reduced injuries to their children, and lower rates of subsequent pregnancy and less use of income assistance.

Gender and Attention Deficit Disorder With Hyperactivity

Attention Deficit Hyperactivity Disorder (AD/ HD) is a prevalent child psychiatric disorder for which efficacious pharmacological psychological treatments have been established. Nevertheless, several studies indicate that girls and children from ethnic minority backgrounds are significantly less likely to receive AD/HD treatment, including psychotropic medications, than are boys and Caucasian children. Research has found different behavioral manifestations of AD/HD in girls and boys and the differences may result in gender-based referral bias unfavorable to girls. For example, researchers have found that girls with AD/ HD had relatively high rates of verbal aggression toward other children, whereas boys with AD/HD engaged in more rule breaking and externalizing behaviors.

Treatment. There is a paucity of data regarding the efficacy of medications for the treatment of AD/HD in girls. The limited published literature suggests that psychostimulant treatment is equally effective in boys and girls with AD/HD. A large-scale randomized clinical trial assessed the efficacy of atomoxetine in school-age girls with AD/HD and found that atomoxetine was superior to placebo in reducing the core symptoms associated with AD/HD (inattention and impulsivity) and that the medication was well tolerated by the research participants.

What the Evidence Suggests

The literature reviewed found that there are relatively few studies focused on the special issues and treatment needs of transition age women. Where treatments and interventions have been designed for adolescent girls and young women, they are in the early stages of implementation and analysis. The evidence presented suggests that transition age women experience all of the mental health problems common in adult women, and affecting young men, to some extent, and may

experience higher rates of some disorders, such as depression, suicidality and eating disorders. In addition, the literature review revealed the following:

- Understanding developmental stages and milestones is a prerequisite for effective mental health interventions for adolescent girls and young women. Clinicians who work with young women not only need to address the presenting problem but also the normative skills their clients may have failed to develop as a consequence of having an emotional or behavioral disorder during this critical developmental phase.
- Trauma is implicated as a risk factor for most of the psychiatric diagnoses affecting young women. Therefore, treatment of adolescent girls and young women should include screening for past and present trauma exposure. Treatment for trauma-related symptoms should be provided in addition to treatment for a specific mental health diagnosis or problem.
- More girls are becoming involved in the justice system, at younger ages, and some for more violent offenses. The delinquent behaviors that propel these women into the justice system often can be traced to trauma and the aftermath of trauma. Girls from ethnic minority groups are disproportionately represented, and female delinquents have fewer mental health placement options than their male peers in the juvenile justice system.
- Transition age women may not be accessing mental health treatment to the same degree as their male peers, despite clear evidence that they experience many of the same mental health challenges.
- Comorbidity is the rule rather than the exception. Assessment for any one of the disorders reviewed in the report should include assessment for all others. Particular attention should be paid to the relationship between depression and substance abuse.
- There are specific risk and protective factors for most of the mental health conditions affecting young women. Understanding these factors can improve prevention, identification, diagnosis and treatment for girls in this important life stage.

- The high incidence of comorbidity, the correlation between mental health problems and trauma and the complex array of risk and protective factors affecting the mental health status of young women combine to make a compelling case for integrated service and treatment programs.
- There are unique issues and challenges for young women in ethnic and cultural subgroups, often necessitating specialized research, assessment and treatment approaches.
- Treatments that are effective or efficacious in young men or adults may or may not be similarly effective for young women. Further research is needed on the most effective treatments to meet the unique mental health needs of transition age women.

Recommendations

The following general guidelines are offered for policy makers and practitioners responsible for providing services to transition age young women. The findings of the report call for interventions that:

- Are supported by evidence from controlled scientific studies;
- Have the greatest potential to support successful completion of key developmental tasks, including the development of high quality friendships, prosocial behavior and academic or vocational success;
- Promote connectedness to community and family or supportive adults outside of the family; and
- Improve coping skills and self-efficacy for adolescent girls and young women.

In addition to these general guidelines, WMHPC makes the following specific recommendations:

Recommendation 1: Integrate mental health and substance abuse treatment services

The rates of comorbidity are stunning and argue for simultaneous rather than sequential treatment. At the very least, mental health clinicians and substance abuse counselors should be cross-trained to provide or make appropriate referrals to comprehensive screening for Posttraumatic Stress Disorder, major depression, suicide risk and substance abuse.

Recommendation 2: Provide gender-specific programming for young women in the juvenile justice system

Adolescent girls entering the juvenile justice system bring with them complex health and mental health needs related to trauma histories, including childhood abuse and current partner abuse, sexual behavior and substance abuse. Services for girls in the juvenile justice system should include treatment for depression, traumatic stress, substance abuse, parenting skills and health-risking sexual behaviors.

Recommendation 3: Provide training to all gateway service providers working with adolescent girls and young women

Gateway service providers—child welfare, juvenile justice, primary health and education providers—need the information and the tools to recognize risk and protective factors, identify mental health symptoms early and make appropriate referrals.

Recommendation 4: Provide specialized treatment programs for transition age mothers

Specialized treatment programs need to be available for young mothers and should also include the support services necessary for them to participate in their treatment, such as transportation, child care and parenting training.

Recommendation 5: Provide specialized training for clinicians working with adolescent girls and young women

Mental health clinicians should receive evidencebased training and education, including understanding of the distinct risk and protective factors for adolescent girls and young women in racial and ethnic subgroups. Clinicians need the information and the tools to allow them to offer culturally and gender appropriate services and treatments.

Recommendation 6: Increase funding for mental health treatment research specific to transition age women and subgroups of transition age women

Research on the unique treatment and service needs of transition age women is so far inadequate and more research is needed. Further targeted research is needed. It is critical that gender and ethnicity become routine variables in research projects, and a component of all data collected, analyzed and published by funding agencies.

Introduction

A Roadmap to Mental Health Services for Transition Age Young Women: A Research Review was sponsored by the California Women's Mental Health Policy Council (WMHPC), in collaboration with the California Institute for Mental Health (CIMH). The WMHPC, founded in 1999, is a statewide nonpartisan membership organization, with a mission to ensure effective, gender-specific, culturally appropriate mental health services for women and girls. CIMH promotes excellence in mental health services, emphasizing research and educational activities based on scientifically proven mental health treatments and services.

This report focuses specifically on the mental health needs of adolescent girls and young adult women, sometimes referred to as "transition age" women, as they move through adolescence to adulthood. There is clear evidence suggesting that transition age young women tend to fare more



Clear evidence suggests that transition age young women tend to fare more poorly than their male counterparts, with more sexual assaults, single parenthood, homelessness, under employment and unemployment, and suicide attempts.

poorly than their male counterparts, with more sexual assaults, single parenthood, homelessness, under employment and unemployment, and suicide attempts (Davis & VanderStoep, 1997; Lewinsohn, Rhode, & Seeley, 2001). Moreover, this vulnerable group is often neglected in social and mental health service systems. Unfortunately, there has been only limited research conducted on the outcomes of gender-specific programs and interventions.

The primary goal of this report is to provide mental health service system decision makers with the available evidence from the scientific literature in order to improve outcomes for transition age young women. The report includes: (a) information about specific mental health problems which disproportionately affect young women, (b) evidence from the social science literature on mental health interventions focused on young women, (c) analysis of evidence-based interventions most likely to enhance young women's successful transition to adulthood, and (d) implications for mental health service delivery.

A Developmental Perspective

This report relies on a developmental perspective as a cross-cutting theme based on this value assumption: change in young women is both inevitable and desirable. Fundamentally, understanding developmental stages and milestones is a prerequisite for effective mental health interventions for adolescent girls and young women. Clinicians who work with young women not only need to address the presenting problem but also the normative skills their clients may have failed to develop as a consequence of having an emotional or behavioral disorder during this critical developmental phase.

One of the primary goals of clinical intervention with adolescent girls should be helping them attain mastery of the developmental tasks which predict successful adaptation in adulthood. For example, the developmental literature suggests that, in adolescence, developing high-quality friendships, prosocial behavior and academic or vocational success can increase a young woman's chance of enjoying mutually satisfying romantic relationships and work success, the primary developmental tasks of young adulthood (Roisman, Masten, Coatsworth, & Tellgen, 2004).

Girls and young women experience distinct stresses and require different skills at various stages in their development. Young women experience concurrent cognitive, social, physical and emotional changes. The complex and interacting changes of this developmental phase can present unique stresses and challenges to the healthy physical and psychological functioning of individual young

Table 1 Developmental Milestones for Adolescents and Young Adults

Developmental Milestones in Adolescence

- Sexual development
- Higher cognitive abilities, including abstraction, consequential thinking, hypothetical reasoning and perspective taking
- Transformations in youth-family relationships; potential increase in family conflicts
- Peer relationships increasingly important and intimate
- Making transition from adolescence to adulthood
- Developing sense of identify and autonomous functioning

Developmental Milestones in Young Adulthood

- Establishment of meaningful and enduring interpersonal relationships
- Identity explorations in areas of love, work and world views
- Peak of certain risk behaviors
- Obtaining education and training for long-term adult occupation

Adapted from Holmbeck, Greenley, & Franks 2003.

women, but there is some commonality and predictability. Physiological changes for the teen girl include the onset of menses, the ability to procreate and the alterations in her body. Psychological changes include shifting perceptions of body image, development of personal identity, interest in self as a sexual being and an increasing ability to think abstractly and to experience increasingly complex emotions. Major developmental milestones during this period are outlined in Table 1.

This developmental perspective—that the treatment needs of transition age women must be met in the context of the complex developmental stages they are navigating—is a foundation of this report and of much of the evidence available on this topic.

Methodology and Definitions

The primary purpose of this report is to highlight the evidence from the social science literature regarding mental health treatments and practices that are most efficacious for transition age women. Mental health treatments are classified as effective, efficacious or promising, depending on the level of scientific evidence in support of a particular treatment or intervention. A practice is said to be effective when it achieves outcomes based on controlled research (random assignment), with independent replications in usual care settings. A practice is deemed efficacious when it achieves outcomes based on controlled research (random assignment or quasi-experimental design) and in controlled settings (e.g. university research, National Institutes of Mental Health). Finally, a practice is promising when it achieves outcomes based on a rigorous evaluation (generally involving a comparison group) or a series of pretests and posttests. In reviewing the literature on outcomes for gender-specific treatments, there were no examples of effective or promising interventions, only efficacious ones.

Focus on Mental Health Treatment

The treatments and practices included in this report are, in most cases, related to mental health treatment for a specific diagnosis or constellation of symptoms and functional difficulties. Increasingly, practitioners and researchers recognize that effective treatment of youth with mental illness requires more than discreet mental health treatments but involves comprehensive, integrated programs that also incorporate supportive services, including vocational training, housing, transportation, etc. However, a review of comprehensive service programs is not included here. This decision was made for a variety of reasons. First, the research and development on these types of programs is still in its infancy and therefore, largely conceptual in nature. Second, programs for transition age youth funded by the federal Substance Abuse and Mental Health Services Administration are relatively new and have not yet produced outcome data to inform an analysis of effectiveness. Finally, there is virtually no evidence to support gender-specific conclusions or recommendations.

Identification of Risks and Protective Factors

This report also identifies those factors that increase the risk of or protect against mental illness in transition age young women. Mental health prevention research has yielded greater understanding of the conditions, or risk factors, which can lead to many of the mental health problems young women face, such as substance abuse, teen pregnancy, suicide, delinquency, violence and early withdrawal from school. Risk factors exist in four domains: individual, peer group, family, school and community.

Protective factors are the personal, social and institutional resources that promote successful adolescent development or buffer risk factors that might otherwise compromise development. Protective factors foster the development of resiliency in youth. The concept of protective factors has been instrumental in shifting the focus of treatment from what is wrong with youth to what can be done to facilitate healthy development.

In addition, the report includes available research and related recommendations on the racial, ethnic and gender differences in prevalence, risk and protective factors and mental health treatments for transition age women and subgroups of transition age women.

Gender and Mental Health Service Utilization

A growing body of evidence indicates that transition age women are not accessing mental health services at the same rates as their male counterparts, despite demonstrated need (Cuffe, Waller, Addy, McKeown, Jackson, Moloo, & Garrison, 2001; Jordon, 2004; Kataoka, Zhang, & Wells, 2002; Strum, Ringel, & Andreyeva, 2003). One of the most likely factors accounting for this difference is the gender bias in referral rates from the juvenile justice, child welfare and special education systems (Jordon, 2004). Mental health problems in girls tend to be identified later than in boys, or in some instances, are missed altogether (McGee and Feehan, 1991). One possible explanation

for this disparity is that the behavioral manifestations of mental health problems in girls are different than those in boys and also potentially less disruptive in home, school and community settings.

Stiffman, et al. (2001) found that "gateway" service providers—primary health, child welfare, juvenile justice, and education providers (Mechanic, Angel, & Davies 1991)—are the first (other than parents) to identify and refer a youth for mental health services. This research concluded that the primary predictors of mental health service provision were not mental health need but rather gateway service provider variables. Specifically, provider knowledge of youth mental health problems and provider knowledge of mental health resources were the primary predictors of service use (Stiffman, et al., 2001).

Trauma and Young Women: Prevalence and Implications

This report begins with the prevalence research on trauma because trauma is implicated as a risk factor for virtually all psychiatric diagnoses affecting young women, including substance abuse. In addition, the early results from research on juvenile delinquency suggest that trauma may be the pathway to delinquency for girls.



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In psychiatric terms, trauma refers to an experience that is emotionally painful, distressing or shocking, and which often results in lasting mental and physical effects. Psychiatric trauma or emotional harm is essentially a normal response to an extreme event. It involves the creation of

emotional memories about the distressing event. In general, it is believed that the more direct the exposure to the traumatic event, the higher the risk for emotional harm. However, even "second-hand" exposure to violence or a disaster can be traumatic.

There are a range of traumatic experiences to which adolescents and young women might be exposed. They include: (a) community violence, including witnessing community violence; (b) domestic violence, including same-sex partner abuse; (c) man-made or natural disasters; (d) neglect; (e) physical abuse; (f) psychological maltreatment; (g) school violence; (h) sexual abuse; and (i) terrorism.

In addition, adolescent girls might experience refugee trauma, childhood traumatic grief and complex trauma, which bear some explanation. First, refugee trauma includes exposure to war, political violence or torture. Refugee trauma can be the result of living in a region affected by bombings and shootings or experiencing forced displacement because of political violence. Second, childhood traumatic grief can occur following the death of a loved one. Traumatic grief occurs when trauma symptoms interfere with the child's ability to navigate the typical bereavement process. Finally, complex trauma refers to exposure to multiple or prolonged traumatic events which have an impact on development. Exposure to multiple and prolonged traumatic events—and the resulting loss of safety, inability to regulate emotions and the ability to detect or respond to cues of danger—often sets off a chain of events leading to subsequent or repeated trauma exposure in adolescence and adulthood (www.nctsnet.org).

Trauma researchers use a variety of terms to communicate about the trauma experience. The terms trauma, trauma exposure, exposure and victimization are used somewhat interchangeably. In general, trauma refers to an event or experience; traumatic stress is the result of that experience (which may or may not include the actual diagnosis of posttraumatic stress disorder). In this review, the terms used generally reflect the terminology used by the researchers and authors referenced.

Violence against women overall is a serious public health problem and affects relatively high percentages of all women. The National Comorbidity Study, using a nationally representative sample, found 9 percent of women reported being raped, 12 percent reported being sexually molested, 7 percent reported being physically assaulted and 7 percent reported being threatened with a weapon at least once in their lifetime (Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995). Respondents in the National Women's Survey reported similar rates of violent victimization. Of the participants interviewed, 13 percent experienced rape, 14 percent reported other sexual assault and 10 percent had been physically assaulted during their lifetime (Resnick, Kilpatrick, Dansky, Saunders, & Best, 1993).

Two recent large-scale studies reviewed the results of surveys that included youth—one commissioned by the United States Justice Department and the other at the Medical University of South Carolina—and examined the relationship between youth victimization and mental health and delinquency outcomes.

The Justice Department survey found that a clear relationship exists between youth victimization, mental health problems and delinquent behavior (Kilpatrick, Saunders & Smith, 2003). Survey respondents reported lifetime prevalence of four types of violence: sexual assault, physical assault, physically abusive punishment and witnessing an act of violence. Researchers found extremely high rates of interpersonal violence and victimization among adolescents. Specifically, 1.8 million adolescents had been sexually assaulted, 3.9 million had been severely physically assaulted and another 2.1 million reported being punished by physical abuse. The survey revealed that witnessing some form of violence was the most prevalent trauma experience, with approximately 8.8 million youths indicating that they had seen someone shot, stabbed, physically assaulted, sexually assaulted or threatened with a weapon.

Kilpatrick et al. (2003) also examined variation by race, ethnicity and gender. They found a higher prevalence of all types of victimization among African American and Native American adolescents. More than half of African American, Native American and Latino adolescents had witnessed violence in their lifetime. Native American adolescents also had the largest prevalence rate for sexual assault victimization; Caucasians and Asians reported the lowest. Native Americans, African Americans and Latinos reported the highest victimization prevalence of physical assault; between 20 and 25 percent reported experiencing at least one physical assault.

Exposure to violence also differed by gender. Girls were more likely to have experienced sexual assault than boys (13 percent compared to 3.4 percent of boys). Boys, however, were at significantly greater risk of experiencing physical assault (21.3 percent compared to 13.4 percent of girls). A substantial number of all adolescents reported having witnessed violence (43.6 percent of boys and 35 percent of girls). Physically abusive punishment was similar for both genders (8.5 percent for boys and 10.2 percent for girls).

Consistent with other research on victimization of youth, the Justice Department survey found that the victims typically knew the perpetrators of both sexual and physical assault. Perpetrators included family members, friends, adult authority figures and romantic partners. In addition, victimization took place in familiar settings – home, school and neighborhood.

In addition to epidemiological data about the rates of violence and exposure to violence, there is an extensive body of literature describing the negative sequelae experienced by female victims of violence. Data from national samples demonstrate that Posttraumatic Stress Disorder (PTSD) is a relatively common response (Kessler, et al., 1995; Resnick, et al., 1993). Victims of sexual assault also report high levels of depression, anxiety and substance abuse (Byrne, Resnick, Kilpatrick, Best, & Saunders, 1999). Since most cases of rape and other sexual assault occur before age 18 (Kilpatrick, Edmunds, & Seymour, 1992), sexual violence may have a detrimental developmental impact on educational, occupational and relationship functioning.

Kilpatrick et al. (2003) also examined the rates at which adolescents reported mental health problems, including substance abuse and delinquent behavior. Girls were significantly more likely than boys to have lifetime PTSD (10.1 percent compared to 6.2 percent of boys) and the prevalence of PTSD increased with age. Caucasians, Native Americans



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and Asians had significantly lower rates of PTSD than did African American and Latino adolescents. Boys were significantly more likely than girls to have met diagnostic criteria for lifetime abuse of alcohol, but for marijuana or hard drugs the prevalence rates were similar for both genders. While the overall rates of PTSD were lower for witnessing violence than for other types of victimization, the PTSD rate among girls who witnessed violence was nearly double that of boys witnessing violence (20.2 percent versus 11.2 percent).

In the other study, a group of trauma researchers from the Medical University of South Carolina used data from the National Survey of Adolescents to test the hypothesis that exposure to interpersonal violence increases the risk of PTSD, major depression, substance abuse and dependence and comorbidity (Kilpatrick, et al. 2003). The study supported the hypothesis. Specifically, 15.5 percent of the boys and 19.3 percent of the girls who had experienced interpersonal violence had at least one of the three mental health problems. Roughly twice the proportion of girls met the diagnostic criteria for PTSD and major depression. Boys and girls had roughly the same prevalence for substance abuse, 8.2 percent and 6.2 percent, respectively.

Further, the South Carolina study found that interpersonal violence consistently increased the risk for comorbid mental health problems (Kilpatrick, et al., 2003). Nearly three fourths of all adolescents diagnosed with PTSD had at least one comorbid diagnosis, with older girls more likely than other adolescents to meet the diagnostic criteria for a comorbid condition.

While the evidence from community surveys, such as the National Survey of Adolescents and the

National Comorbidity study, reveal the prevalence of trauma-induced mental health problems among young women in the general population, emerging research in young female clinical populations suggests an even higher prevalence of traumainduced mental illness. Although there is still limited information about the connection between trauma and mental health problems in transition age women specifically, the evidence increasingly supports a pattern for young women similar to the known impacts of trauma in adult women. The connection between substance abuse, mental health problems and trauma for adult women receiving substance abuse and/or mental health treatment is well established. The prevalence of physical and sexual abuse among women in substance abuse treatment programs is estimated to range from 30 percent to more than 90 percent, depending on the definition of abuse and the specific target population. (Finkelstein, VandeMark, Fallot, Brown, Cadiz & Heckman, 2004.)

Research on traumatic stress among adolescent substance abusers indicates that more females than males report traumatic life events and symptoms associated with traumatic stress. Adolescent females typically score higher than males on self-report measures of anxiety, depression and stress reactions following trauma (Yule, Perrin & Smith, 1998). Despite indications that adolescent boys have higher exposure to violence, female adolescents are more likely to be diagnosed with PTSD (Stevens, Murphy, & McKnight, 2003) and six times more likely than males to be diagnosed with PTSD following exposure to violence. Acute traumatic stress in young women is associated with PTSD, depression, substance abuse, health risking sexual behaviors and health-related problems (Steven, et al., 2003).

Stevens, et al. (2003) compared adolescent males and females enrolled in drug treatment, including those with both low and acute levels of trauma symptoms, on the incidence of substance abuse, mental health problems, physical health problems and HIV risk-taking behavior. The results indicated that adolescent females in treatment, including the subgroup of females with acute traumatic stress, scored higher on all four outcomes than males or those with low traumatic stress. These findings are similar to those found in studies of adult women

being treated for problems associated with substance abuse.

One of the most troubling aspects of childhood victimization is that it appears to initiate a developmental trajectory that increases the likelihood of exposure to traumatic events in adulthood (Grauerholz, 2000; Messman & Long, 1996). The developmental psychopathology perspective holds that childhood abuse requires a child to make adaptations, which may alter the developmental trajectory (Cicchetti, 1989).

Smith, Davis and Fricker-Elhai (2004) posited that disruptions in social cognition (the mental ability to effectively perceive, evaluate and react to other people) among abused children and adolescents may be directly relevant for interpersonal functioning later in life. The study explored the relationship between social cognitions and risk behaviors among adult women with histories of child sexual abuse, child physical abuse, aggravated assault and adult sexual assault and those with no history of interpersonal violence. In addition, researchers analyzed the extent to which social-cognitive processes differed for trauma victims, and if so, whether these differences were related to involvement in risky behaviors.

Smith et al. (2004) found that victims of child sexual abuse and adult sexual assault perceived less risk associated with illicit drug use and risky sexual behavior. Further, victims of child sexual abuse, adult sexual assault, and adult assault reported more benefits associated with illicit drug use and risky sexual behavior than did the nonvictim group, and those sexually assaulted as adults reported more benefits of heavy drinking than the nonvictim group. While the study did not fully examine why victims perceive these behaviors as having more positive consequences than nonvictims, the results highlight the important role of mental processes in predicting involvement in risky behaviors. These findings suggest that identifying, challenging and modifying cognitions may help to reduce involvement in risky behaviors and the risk of revictimization in young women with a history of trauma.

In summary, the evidence consistently demonstrates a strong relationship between trauma and mental health problems, substance abuse and dependence, poor physical health and risky sexual behaviors for transition age women. The research suggests that clinicians working with young women who have been exposed to trauma should evaluate them for PTSD, major depression and substance abuse. Complaints of health-related symptoms may be just one indicator that a young woman could be experiencing PTSD. Finally, the findings highlighted here make a compelling case for integrating mental health services and substance abuse treatment, given the high incidence of co-occurring substance abuse and other psychiatric disorders in young women.

Girls in the Juvenile Justice System

Statistics show that more girls are becoming involved in the justice system, at younger ages, and some for more violent offenses. Arrests of adolescent girls for drug abuse violations have increased markedly in recent years. In some cities, nearly 60 to 70 percent of young women ages 15-20 test positive for drugs at the time of arrest, with 60 to 87 percent needing substance abuse treatment (Mental Health and Adolescent Girls in the Juvenile Justice System, 2004).



Females in the juvenile justice system have specialized mental health treatment needs. Girls from ethnic minority groups are disproportionately represented, and female delinquents have fewer placement options than their male peers in the juvenile justice system. The delinquent behaviors that propel these women into the justice system often can be traced to trauma and the aftermath of trauma. A growing body of research is beginning to identify developmental pathways most likely to lead girls to delinquency. Some scholars are beginning to identify trauma exposure—physical, sexual and

emotional abuse—as the first step for many young females moving through the juvenile justice system. There are specific characteristics, risk factors and protective factors for these young women which have implications for effective treatment.

Although females represent the minority of juvenile offenders, arrests among girls are increasing at an alarming rate (Siegel & Senna, 2000). Female juvenile offenders commit less violent crimes than male juvenile offenders, but the number of females involved in violent crime is increasing (Acoca, 1999). Female juveniles are more likely than males to be involved in shoplifting, status offenses and prostitution (Chesney-Lind & Sheldon, 1998). However, an increasing number of females are involved in armed robbery, gang activity, drug trafficking, burglary, weapons possession, aggravated assault, and prostitution (Siegel & Senna, 2000). Between 1988 and 1997, arrests of male delinquents increased about 28 percent whereas arrests among female delinquents increased about 60 percent (Chesney-Lind & Sheldon, 1998).

Characteristics of Female Juvenile Offenders

Female juvenile offenders ages 14-16 are likely to have some or all of the following characteristics: member of an ethnic minority group, poor academic history, high-school drop out, physically and or sexually abused and exploited, use and abuse of substances, unmet medical and mental health needs, feelings that life is oppressive, and lack of hope for the future (Mullis, Cornille, Mullis, & Huber, 2004).

In addition, a number of studies indicate that female juvenile offenders have greater exposure to trauma, a greater incidence of mental health problems than male juvenile offenders and higher incidences of physical, emotional and sexual abuse, physical neglect, and family history of mental illness than their male counterparts (McCabe, Lansing, Garland, & Hough, 2002). For example, Timmons-Mitchell et al. (1997) reported a prevalence of mental health disorders in 84 percent of female delinquents compared to 27 percent of males. A more recent study carried out by Linda Teplin and her colleagues at Northwestern University (2002) found that, among teens in juvenile detention, nearly three

quarters of the girls had at least one psychiatric disorder compared to 65 percent of boys. The investigators found that, overall, psychiatric disorders were more prevalent among older youth and females, and 20 percent of all females in the sample had a major depressive disorder.

Trauma Among Girls in the Juvenile Justice System

Exposure to trauma is higher among adolescents in the juvenile justice system and appears to increase the incidence of behaviors likely to lead to juvenile justice system involvement. For example, exposure to trauma increases the risk of illicit substance abuse and subsequent revictimization among girls.

While data on the prevalence of posttraumatic stress disorder (PTSD) in youth vary significantly depending on the type of sample, measurements used and time frames assessed (Abram, et al., 2004), there is evidence that PTSD is more common in youth in the juvenile justice system than in community samples, and more common among incarcerated girls than boys (Reebye, Moretti, Wiebe, & Lessad, 2000). Chamberlain and Moore (2002) note that stress-reactivity, developmental lags and impairment put girls at risk for intrarelational and interrelational chaos, which can lead to ongoing relational and social aggression as both victim and perpetrator.

Risk Factors for Juvenile Offending

A number of interconnected risk factors for adolescent girls being at risk of juvenile offending and delinquency are identified in the research literature (reviewed in Mullis et al., 2004). Risk factors include:

- Individual characteristics—impaired cognitive functioning and poor academic skills; weak language skills; poor peer relationships, including having delinquent peers; early onset of menarche; early sexual experiences; emotional and behavioral disorders; low self-esteem; victimization; and African-American or Latino descent.
- Family characteristics—parental disengagement and inattention in relation to their daughters,

- parental abuse, family conflict, intergenerational patterns of incarceration and arrests, poverty, single-parent households, and poor education for head of household.
- Peer characteristics—association with deviant peers, involvement in intimate relations with peers, gang participation, sexual harassment and interpersonal rivalries, and impulsivity and anger in friendship groups.
- School characteristics—poor school perfor-mance, early occurrence of disruptive behavior in school, low school bonding and dropping out of school, expulsion from school, high absenteeism and frequent school changes, and limited involvement in extracurricular activities.
- Community characteristics—living in an urban environment, early age at first arrest, distressed and disorganized neighborhood environments, lack of social supports in the community and disruption or lack of available activities.

Protective Factors in Juvenile Offending

Protective factors refer to individual or environmental factors that reduce the possibility of female juvenile offending, while resilience refers to thriving in spite of significant obstacles. Mullins et al. (2004) identified protective factors or characteristics of resilient female adolescents as follows: (a) ability to garner positive attention, (b) stable caregiving, (c) quality relationship with at least one caregiver, (d) available social networks, (e) confidence and optimism, (f) self-esteem, (g) positive self-concept, (h) sense of autonomy, (i) stimulating environments, (j) emotional support, (k) safety from harsh environments and (l) developmental assets supported by community activities.

Treatment for Youth in the Juvenile Justice System

Effective mental health treatments for youth in the juvenile justice system need to be highly structured, emphasize the development of basic skills, and provide individual counseling which addresses behaviors, attitudes and perceptions (Altschuler, 1998). Cognitive behavioral approaches have been shown to be the most effective treatments for youth in the juvenile justice system.

Increases in the number of adolescent girls entering the juvenile justice system in combination with greater understanding of the unique needs of delinquent girls have precipitated calls for more gender specific programming (Girls in the Juvenile Justice System, 2004). The known risk and protective factors for adolescent girls can form the basis of gender-specific programming. Programs should focus on the risk factors most likely to impact girls and build on the protective factors most likely to promote resiliency. Interventions should positively impact a young woman's relationships with her family and other supportive adults, peer culture, school and community.



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Females average significantly longer (347 days on average) incarceration periods than males (Timmons-Mitchell, et al., 1997). The lack of available community-based services for girls means they are twice as likely to be detained (Siegel & Senna, 2000). Timmons-Mitchell, et al., (1997) noted that girls are more likely to receive an outof-home placement when they become involved with the juvenile justice system. These findings likely reflect the fact that young women involved with the juvenile justice system generally have fewer family resources to rely upon than do young men. The lack of family support contributes to the length of detention for young girls. For example, because girls in the juvenile justice system tend to have less active family involvement, they are less likely than boys to be considered for community placement options that depend to some extent on family involvement in the treatment process.

Despite the growing number of girls in the juvenile justice system, only a small number of programs nationwide focus specifically on delinquent girls (Acoca, 1999). The results of the programs and studies that do exist are discussed below.

Trauma-focused interventions

The only therapy with strong research support demonstrating efficacy for trauma in adolescent girls and boys is Mannarino and Deblinger's (2003) Cognitive Behavioral Therapy for PTSD (Saunders, Berliner, & Hanson, 2003). Cognitive Behavior Therapy (CBT) combines two very effective kinds of psychotherapy—cognitive therapy and behavior therapy.

The techniques employed in CBT focus on cognitive, behavioral and affect (mood) difficulties. CBT as used in treating PTSD is designed to reduce negative emotional and behavioral responses and correct maladaptive beliefs and attributions related to traumatic experiences.

Dialectical Behavior Therapy

Trupin, Stewart, Beach and Boesky (2002) recently evaluated the effectiveness of Dialectical Behavior Therapy for incarcerated female juvenile offenders. Dialectical Behavior Therapy (DBT) is a modification of CBT designed specifically for individuals with self-harm tendencies, including those exhibiting suicidal tendencies and behaviors. For purposes of the intervention study, DBT was adapted to treat emotional dysregulation, suicidal ideation and aggressive behavior, which often result in increased incarceration time for female juvenile offenders. The intervention focused on both staff and girls in custody. For staff, the goal of the intervention was to reduce reliance on punishment, restriction and isolation as the primary response to emotional dysregulation (defined as suicide attempts, aggression and noncompliance). Adolescent girls were taught DBT skills, including coaching and active reinforcement to extinguish old behaviors. Five categories of skills were taught—core mindfulness skills, interpersonal effectiveness skills, emotion regulation skills, distress tolerance skills and self-management skills (Trupin, et al., 2002).

The findings were mixed. In general, the authors

concluded that DBT training is most effective with an intensive training program, motivated staff and female juvenile offenders who exhibit the types of parasuicidal and aggressive behavior that DBT targets. With these elements, DBT training can be successful in reducing behavior problems and decreasing staff punitive responses to behavior. In the study, the training was not as successful as hypothesized because a significant number of girls did not exhibit the problems DBT is intended to remediate. The findings from this study underscore the importance of matching treatment to symptoms, behaviors and/or diagnoses.

Family and parenting interventions

Evidence suggests that it is important to involve family members in treatment and rehabilitation of juvenile delinquents. A recently published metaanalysis of randomized controlled trials of family and parenting interventions for conduct disorder and delinquency found that family interventions are more successful than usual care in decreasing subsequent arrests, self-reported delinquency and time spent in institutions (Woolfenden, Williams, & Peat, 2002). Three of the family interventions included in the analysis were highlighted as model programs in the 2001 Surgeon General's report Youth Violence—Functional Family Therapy (FFT), Multisystemic Therapy (MST) Multidimensional Treatment Foster Care (MTFC). While the outcomes for all three interventions demonstrated effectiveness in reducing juvenile offending and increasing parental competencies, only MTFC has been specifically adapted for intervention with girls and is discussed in more detail below. Most research on FFT and MST has focused on males who continue to make up the majority of juvenile offenders.

Multidimensional Treatment Foster Care (MFTC). MTFC is a community and family-based alternative to residential and group care for youth with behavioral, emotional and mental health problems (Chamberlain, 2003). Previous research on the MTFC model demonstrates that it is more effective than group care for reducing subsequent juvenile offending in samples that included significantly more males than females (Chamberlain & Reid, 1998). The model has been adapted and is currently being evaluated for effectiveness with

female juvenile offenders.

The MTFC model involves placing girls into a foster home where foster parents are provided training, support and access to program staff 24 hours a day, seven days a week. Each girl has an individualized treatment program, including individual therapy, skills training and family therapy, focused on behavior management skills. New behaviors are taught and reinforced through an individualized, in-home daily point system. Foster parents are trained to identify and provide sanctions for social/relational aggression, and girls are taught to avoid social/relational aggression and to self-regulate their emotions (Leve & Chamberlain, 2004). Social and relational aggression has been implicated in the development of delinquency in girls (Underwood, 2003). Outcome data has yet to be published, but preliminary results suggest the intervention is as effective for female juvenile offenders as for male juvenile offenders and is superior to group care (P. Chamberlain, personal communication, October 4, 2004).

Posttraumatic Stress Disorder

The estimated lifetime prevalence of Posttraumatic Stress Disorder (PTSD) among adult Americans is 7.8 percent, with women (10.4 percent) twice as likely as men (5 percent) to have PTSD at some point in their lives (Kessler, et al., 1995). This represents only a small portion of those who have experienced at least one traumatic event; 60.7 percent of men and 51.2 percent of women report having experienced at least one traumatic event (Kessler, et al., 1995). More than 10 percent of men and 6 percent of women report four or more types of trauma during their lifetimes. For women, the most common events were rape, sexual molestation, physical attack, being threatened with a weapon, and childhood physical abuse.

Risks and Protective Factors

Research on PTSD has identified risk factors that include environmental and demographic factors, psychiatric history, cognitive and biological systems and familial risk (Yehuda, 1999).

Environmental risk factors

A history of prior exposure to trauma or to chronic stress is a risk factor for depression, particularly if it is experienced at a young age (Halligan & Yehuda, 2000). Social factors may also affect risk. A history of family instability is associated with increased prevalence of PTSD (King, King, Foy, & Gudanowski, 1996).

Demographic risk factors

Breslau, et al. (1998) noted that several demographic factors affect the risk of trauma exposure, including gender, age, socioeconomic status, and ethnicity. African American women were more likely to have experienced trauma than were women from other ethnic groups. Gender is an extremely salient risk factor. Breslau et al. (1998) found that the higher risk for PTSD in females is primarily due to a particular vulnerability to assaultive violence. The authors suggest that assaultive violence is more threatening and injurious to females, because most perpetrators are male, and are likely to wield greater physical strength. It may be that ethnicity is interacting with these other factors so that ethnicity alone is not a higher risk factor for PTSD.

Prior psychiatric disorder

Breslau et al. (1998) also found that prior depression, anxiety or substance abuse disorders all represented risk factors for the development of PTSD, and concluded that having a psychiatric history of any kind was a stronger predictor for PTSD than history of one of the specific disorders.

Cognitive risk factors

Lower intellectual functioning has been found to be a risk factor for the development of PTSD (Macklin, et al., 1998). In addition, individuals with PTSD show increased neurological soft signs, indicative of subtle nervous system dysfunction. Furthermore, they also report a large number of developmental problems, suggesting that there are preexisting impairments in neurodevelopment which act as risk factors for the development of PTSD (Gurvits, et al., 2000).

Biological risk factors

Research on the biological aspects of PTSD identified several abnormalities that are present in trauma survivors with PTSD. Recent evidence suggested that at least some of the observed brain abnormalities (e.g. neurotransmitter malfunctions) represent risk factors for the development of PTSD (for a review see Yehuda, 1999).

Familial risk factors

Davidson, Swartz, Storck, Krishnan & Hammett, (1985) found that trauma survivors with PTSD were more likely to have parents and first-degree relatives with mood, anxiety, and substance abuse disorders, compared with trauma survivors who did not develop PTSD. More recently, Yehuda, Schmeidler, Giller, Binder-Byrnes, & Siever, (1998) demonstrated that Holocaust survivors with PTSD are more likely to have children with PTSD compared to Holocaust survivors without PTSD.

Protective factors

Very little research has been done to identify protective factors in the development of PTSD. However, both social support and parental warmth and nurturing are associated with lower level of symptoms (Solomon, Mikulincer & Avitzur, 1988).

Treatment for PTSD

There are currently no treatments for PTSD developed for or tested specifically on adolescent girls or young women. However, because of the greater prevalence of PTSD among girls and women, most of the participants in clinical trials have been female.

Cognitive Behavioral Therapy is the most efficacious treatment for PTSD. Exposure therapy, a form of CBT unique to trauma treatment, uses carefully repeated, detailed imagining of the trauma (exposure) in a safe, controlled context, to help the survivor face and gain control of the fear and distress that was overwhelming during the trauma. In some cases, trauma memories or reminders can be confronted all at once (flooding). For other individuals or traumas, it is preferable to work up to the most severe trauma gradually by using relaxation techniques and by starting with less

upsetting life stresses or by taking the trauma one piece at a time (desensitization). Along with exposure, CBT for trauma includes: learning skills for coping with anxiety and negative thoughts, managing anger, preparing for stress reactions (stress inoculation), handling future trauma symptoms, addressing urges to use alcohol or drugs when trauma symptoms occur, and communicating and relating effectively with people.

Cognitive Behavioral Therapy has also been found to be a safe and effective treatment for PTSD when it results from specific traumas including assault, road traffic accidents, combat, terrorism and childhood physical and sexual abuse. In addition, there have been recent advances in early intervention and in the treatment of disorders that are comorbid with PTSD (for a review see Harvey, Bryant & Tarrier, 2004).

Substance Abuse

Addiction has long been considered a male disease and until recently there has been little research focused on gender differences in the nature and course of addiction. However, the National Institute on Drug Abuse estimated that more than 4.4 million women in the United States need treatment for drug use (National Institute on Drug Abuse, 1994). Research that yields additional evidence about the unique motivations and



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vulnerabilities of girls and young women would lead to more effective substance abuse prevention and treatment programs specifically tailored to the risks and consequences for young women.

Despite promising statistics that indicate youth substance abuse is declining, more than one-quarter of high school girls currently smoke cigarettes, 45 percent drink alcohol, more than a quarter binge drink, and 20 percent use marijuana (The Formative Years, 2003). In recent years, younger girls have been smoking and drinking as much as boys and are catching up in the use of illicit drugs. In addition, research reveals that girls are suffering consequences beyond those of boys.

A recently published study by the National Center on Addiction and Substance Abuse (CASA) at Columbia University has contributed significantly to our understanding of the pathways and consequences for substance abuse and dependence among girls and young women. The three-year study titled, The Formative Years: Pathways to Substance Abuse Among Girls and Young Women Ages 8-22, revealed that girls and young women use substances for reasons that differ from boys and young men, risk factors are different, and that girls and young women are more vulnerable to addiction: they get hooked faster and suffer the consequences sooner than boys and young men. The Columbia University study results are consistent with the growing body of evidence identifying gender differences in pathways to, and consequences of substance abuse (Amaro, Blake, Schwartz, & Flinchbaugh, 2001). Specifically, researchers found:

- Girls and young women who abuse substances are more likely than boys or young men to be depressed and suicidal;
- Girls and young women are likelier than boys and young men to diet and to have eating disorders, which also increases the risk for substance abuse;
- Girls and young women abusing substances are more likely to have been physically or sexually abused;
- Teenage girls who experience frequent moves are at increased risk for substance abuse;
- Girls who experience early puberty are at increased risk of using substances earlier, more often and in larger amounts than their latermaturing peers;
- Girls and young women appear to experience more severe problems from drinking, including stronger addiction and withdrawal symptoms;
- Substance abuse increases the likelihood that girls and young women will engage in risky sex or be the victims of sexual assault.

In addition to the findings above, which highlight gender differences, the study identified risk factors common to both girls and boys. These include: academic failure, poor self control (Griffin, Botvin, Epstein, Doyle, & Diaz, 2000) and poverty (Brooks-Dunn & Duncan, 1997). The study also found that youth are at increased risk of substance abuse if they experience poor and inconsistent family management practices, characterized by unclear expectations and poor monitoring of behavior; few and inconsistent rewards for positive behavior and harsh punishment for unwanted behavior (Hawkins, Catalano, & Miller, 1992).

Substance Abuse and Racial and Ethnic Subgroups

Although the research is relatively sparse, several studies have identified differences in substance abuse in girls and young women among different ethnic subgroups. In general, African American young women smoke, drink and use drugs at lower rates than white or Latina young women (CDC, 2002). Even though African American girls begin drinking at older ages than girls from other racial or ethnic groups, they experience disproportionately higher consequences of heavy drinking such as unprotected sex, truancy and the use of illicit drugs (Welte & Barnes, 1987).



Several studies have identified differences in substance abuse in girls and young women among different ethnic subgroups.



Comparable national data are not available on the prevalence of substance abuse among Native American and Asian American females. However, the available research suggests that Native American girls are more likely to smoke and use marijuana than girls from other racial and ethnic groups (Wallace & Bachman, 1991). In addition, Asian American girls and young women appear less likely than white or Latino girls to smoke, drink or use drugs (Au & Donaldson, 2000). Native American women appear to have a much higher rate of alcohol use than do women from other racial and ethnic groups. Moreover, young Native American women 15-24 years of age have death rates from alcohol and other substance abuse that actually exceed those of their male counterparts (LaFromboise, Berman & Sohi, 1994).

Acculturation and alcohol consumption among Latinos

Acculturation, broadly defined, is the extent to which ethnic group members participate in the cultural traditions, values, and practices of the dominant society (Snowden & Hines, 1998). The relationship between acculturation and alcohol consumption has been examined in nationwide and community samples of Latinos in the United States. The most consistent findings across all of these studies is that women who score higher on acculturation scales are more likely to consume alcohol, consume alcohol more frequently, and consume greater amounts of alcohol than those who are less acculturated (Caetano & Clark, 2002).

Other analyses indicate that additional factors may also contribute to the interaction between acculturation and drinking. For example, alcohol consumption is high among acculturated young, Latina women, but lower among acculturated, middle-aged Latino men (Markides, Krause, & Mendes de Leon, 1988). In addition, the social context of drinking also varies by acculturation level. Those who are highly acculturated are more likely to visit settings where drinking takes place (i.e. parties and bars), and to drink in these situations, than those who are less acculturated (Caetano, 1987).

Caetano and Medina Mora (1988) examined the alcohol consumption patterns of recent Mexican immigrants to better understand the nature of the relationship between drinking and acculturation. While they found a change in drinking patterns for men, the same was not true for women, suggesting that acculturation-related drinking patterns among women occur primarily in Latina women born in the United States. In addition, they found that highly acculturated Mexican American women were more likely to have experienced various social and legal problems related to their alcohol use than the

respondents who were less acculturated. Thus, the existing evidence seems to most clearly indicate that acculturation is positively associated with alcohol consumption for women.

Protective Factors in Substance Abuse

This section reviews protective factors that mitigate the chances a young woman will use or abuse substances: family, religion, coping skills, ethnic identity, and peer and social influences.

Family

Positive parent-daughter relationships decrease the likelihood that girls and young women will abuse substances. Girls with strong family bonds are less likely to have substance-abusing peers, making them less likely to use alcohol and drugs (Bahr, Marcos, Maugham, 1995). The relationship between having a strong family bond and having fewer substance-using peers appears to be more protective for girls than for boys (Bahr, et al., 1995). During the teen years, girls tend to communicate more with their parents than do boys, and this is especially true for communication with mothers (Catalano, et al., 1992). One reason that girls may be more communicative is that mothers are more likely than fathers to initiate open communication and children may model their same-sex parent's communication style (Noller, 1995). Girls report being influenced by their mother's opinions when making decisions (Poole & Gelder, 1984), and perceive their relationships as more supportive with their mothers than with their fathers (Furman & Buhrmester, 1992). However, as young women reach college age, increased conflict with mothers is linked to problems related to substance abuse (Turner, Larimer & Sarason, 2000).

Religion

Research consistently demonstrates the protective role religion plays in preventing adolescent substance abuse (Bahr, Maughan, Marcos, & Li, 1998; Barnes, Farrell, & Banerjee, 1995; Benda & Corywn, 2000; Mason & Windell, 2002), particularly for girls and young women (Adlaf & Smart, 1985; Brown, Parks, Zimmerman, & Phillips, 2001; Strawbridge, Shema, Cohen, & Kaplan, 2001).

Religiosity is more protective against substance abuse for females than for males (Adlaf & Smart, 1985; Brown, et al., 2001; DeFronzo & Pawlak, 1994). Girls tend to be more religious than boys and to hold more favorable attitudes toward religion (Forthun, Bell, Peek, & Sun, 1999). More frequent attendance at religious services among girls is associated with less drinking and less binge drinking (Formative Years, 2003) and they are also less likely to report using tobacco or marijuana (National Household Survey of Drug Abuse, 2001). Among female college students, religiosity is related to less alcohol consumptions and fewer alcohol-related problems (Templin & Martin, 1999).

The relationship between religion and substance abuse not only varies by gender, but by race and ethnicity (Amey, Albrecht, & Miller, 1996; Maddahian, Newcomb, & Bentler, 1988). The level of importance African American girls place on religion or spirituality is significantly greater than that of Caucasians or Latina girls (Formative Years, 2003). African Americans, in general, not only report that religion plays a more significant role in their lives than do Caucasians, but they also report a higher frequency of religious service attendance (Barnes et al., 1995; Miller & Hoffman, 1995). For African American girls who report attending church on a regular basis, alcohol use is lower than for those with less frequent attendance (Brown, et al., 2001).

Coping skills

Research demonstrates that good coping skills help protect against substance abuse in adolescents and young adults (Adger, 1992). Coping skills vary by age. Transition age young women are more likely than younger girls to cope with serious problems by hoping they will improve with time, avoiding thinking about them or, at times, using alcohol and drugs specifically to make themselves feel better (Formative Years, 2003). Young women who report that they engage in more adaptive coping methods, such as talking to someone, drink and binge drink less than girls who use this coping strategy less often (Formative Years, 2003).

Ethnic identity

The evidence from research indicates that strong ethnic identity protects both female and male minority youth from substance abuse (Brook, Balka,

Brook, Win, & Gursen, 1998). For example, a recent study of seventh graders found that ethnic pride predicted less substance abuse among African American, Mexican American and mixed-ethnicity youth (Marsiglia, Kulis, & Hecht, 2001).



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Peer and social influences

Researchers hypothesize that girls are more influenced to use substances by pressure from friends, family members (e.g. an older sibling) and peers than boys (Farrell & White, 1998; Griffin, Botvin, Doyle, Diaz, & Epstein, 2000). Generally, girls are more vulnerable to peer pressure around smoking and drinking than are boys (Chassin, Presson, Sherman, Montello, & McGrew, 1986), likely because girls tend to spend more time with friends and be more involved in their lives (Griffin, et al., 2000). However, vulnerability to social influences also varies between and among males and females at different developmental ages. Peer use of alcohol is the single best predictor of alcohol use among boys throughout adolescence. By contrast, adolescent girl alcohol use is associated with having a conduct disorder and peer alcohol use is more important in predicting alcohol use among older adolescent and young adult women (Barber, Bolitho, Bertrand, 1998).

Finally, numerous studies have reported that drug use by male partners is a gateway to drug use for girls and for the progression of drug use among young women (Amaro & Zuckerman, 1990; Anglin, Hser, & McGothlin, 1987; Rosenbaum, 1981). Drug use by the male partner is also highly correlated with women becoming victims of violence and abuse (Amaro, Fried, Cabral, & Zuckerman, 1990).

Peer influence also varies among girls from different racial and ethnic groups (Barnes, et al.,

1994). When compared to African American boys, African American girls have fewer friends who smoke, whereas Caucasian boys and girls have similar numbers of friends who smoke (Robinson & Klesges, 1997). Latina girls have been found more susceptible to peer influences than Latino boys (Epstein, et al., 1999).

Substance Use, Abuse, Dependence and Psychiatric Comorbidity

As discussed earlier, high percentages of substance abusers of all ages have mental health disorders as comorbid conditions. The adult clinical literature suggests that from 50 percent to over 80 percent of all types of substance abusers also meet criteria for at least one psychiatric disorder. The most common comorbidities are anxiety and depression (Armstrong and Costello, 2002). Importantly, retrospective evidence from the Epidemiologic Catchment Area study of adults suggests that the median age of onset for these disorders is before age 20 (Christie, et al, 1988, cited in Armstrong & Costello, 2002). Research has also found a similarly high incidence of comorbidity in adolescents.

To more fully understand substance use, abuse, dependence and psychiatric comorbidity in youth, Armstrong and Costello (2002) reviewed the scientific literature on community studies of adolescents (distinct from clinical studies which use diagnosed and in treatment samples). They found that 60 percent of adolescents had a comorbid diagnosis; conduct disorder and oppositional defiant disorder were most commonly associated with substance abuse, followed by depression. The review also found that substance abuse and psychiatric comobidity is at least as common for girls as it is for boys. Of the twelve studies that reported on gender effects, six reported no gender differences and the rest reported a mixed picture (Armstrong & Costello, 2002). The relative paucity of gender differences could also be because there were too few girls in the sample to detect associations between gender, substance abuse and comorbidity.

Researchers and treatment providers also agree that there is a critical need to address trauma, and the psychological aftermath of trauma, in treating women with substance abuse problems. The dual diagnosis of PTSD and substance abuse is common. The rate of PTSD for clients in substance abuse treatment is 12 percent to 34 percent; for women it is 30 percent to 59 percent (Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995; Langeland & Hartgers, 1998; Najavits, Weiss, & Shaw, 1997). Rates of trauma during their lifetime are even more common (Kessler et al., 1995). Untreated trauma symptoms in women hamper engagement in substance abuse treatment, lead to early drop-out and make relapse more likely (Brown, 2000; Najavits, Weiss, & Shaw, 1999; Ouimette, Finney, & Moos, 1999).

Substance Abuse Treatment

Although the number of curricula and intervention programs specifically addressing the substance abuse treatment needs of girls and young women is increasing, there are still relatively few programs, and very few studies evaluating their effectiveness. In a recent comprehensive and comparative review of the substance abuse treatment outcome literature, Williams and Chang (2000) found that the overwhelming majority of studies focused on Caucasian males. Further research on treatment for women and other ethnic groups is needed. This section highlights those treatments for which there is research support demonstrating safety and effectiveness.

There are two family therapy interventions that have strong empirical support. For these interventions, practitioners have also explored cultural adaptations for African American and Latino youth and are currently evaluating the effectiveness of the treatments for adolescent girls.

Brief Strategic Family Therapy, developed by Jose Szapocznik, has demonstrated effectiveness for adolescent Latinos and their families. Brief Strategic Family Therapy is a short-term, problem-focused therapeutic intervention, targeting children and adolescents. The program improves youth behavior by eliminating or reducing drug use, and its associated behavior problems, and by changing the family members' behaviors linked to substance abuse risk and protective factors.

Multidimensional Family Therapy was originally developed by Howard Liddell and adapted for African American youth and their families. Multidimensional Family Therapy is a

comprehensive and flexible family-based program designed to treat substance abusing and delinquent youth. Gayle Dakof, a clinical researcher working with the Multidimensional Family Therapy group at the University of Miami, is developing a gender-specific version of Multidimensional Family Therapy. She investigated gender, comorbidity and family functioning in a sample of clinic referred youth and found differences in pretreatment characteristics between adolescent boys and girls. Girls used drugs and engaged in externalizing behavior at the same rate as their male counterparts, but were distinguished by their higher levels of internalizing problems and family conflicts and disruptions (Dakof, 2000).

Treatment specific to young women

The only empirically supported substance abuse treatment for adolescent girls and young women was developed by Lisa Najavits to treat co-occurring Posttraumatic Stress Disorder (PTSD) and substance abuse. The program, Seeking Safety, is based on five central ideas: (a) safety as the priority in the first stage of treatment; (b) integrated treatment of PTSD and substance abuse; (c) focus on ideals; (d) four content areas—cognitive, behavioral, interpersonal and case management; and (e) attention to therapist processes (Najavits, 2002).

Najavits (2000) recommends that clinicians delivering Seeking Safety be selected for their actual performance with clients rather than for their professional degree, training and experience level (and within the substance abuse community, recovery status). She described clinician selection and supervision procedures that allow observation of the "clinician in action" rather than through verbal report (Najavits, 2000). In addition, there is a therapist adherence measure designed to evaluate a clinician's use of the treatment with fidelity to the model. A manual on the treatment provides guidelines for clinicians on 25 topics and includes handouts for clients. Information on training, clinician selection and supervision is available at www.seekingsafety.org

Seeking Safety has been empirically evaluated in seven populations thus far: outpatient women (Najavits, Weiss, Shaw, & Muenz, 1998); women in prison (Zlotnick, Najavits, & Rohsenow, 2003); low income urban women (Hien, Cohen, Litt, Miele, & Capstick, 2004); adolescent girls (Najavits, Gallop, & Weiss, under review); women in a community mental health center (Holdcraft & Comtois, 2002); men and women veterans (Cook, Walser, Kane, Ruzek, & Woody (in press); and outpatient men (Najavits, Schmitz, Gotthardt, & Weiss, in press). All of the studies demonstrate that Seeking Safety is successful in ensuring treatment completion, establishing a therapeutic alliance and encouraging help seeking behaviors. Two of the seven studies are considered here because they have implications for the treatment of young women.

The study of low-income urban women employed a randomized design, comparing Seeking Safety to relapse prevention treatment and treatment as usual. At the end of treatment, clients in both the Seeking Safety and relapse prevention treatment groups had significant reductions in substance abuse frequency and intensity, PTSD symptoms, and psychiatric symptom severity. Participants in the treatment as usual comparison did not show any significant changes. Statistically significant improvements in substance abuse and psychiatric severity were not maintained at the six-month follow-up but trends in the direction of lower substance abuse and psychiatric severity were found (Hien, Cohen, Litt, Miele, & Capstick, 2004).

In a second randomized clinical trial, adolescent girls were assigned to Seeking Safety and treatment as usual. Seeking Safety participants evidenced significantly better outcomes than the control group in a variety of domains at post-treatment, including substance use, trauma-related symptoms, cognitions related to PTSD and substance abuse and psychiatric functioning. Some gains were sustained at follow up. Seeking Safety appears to be a promising treatment for adolescent girls but there may need to be modification in intensity and duration of treatment (Najavits, Gallop, & Weiss, under review).

Depression

One of the most consistent findings in research on depression is the higher prevalence of depression and dsythymia (a mood disorder similar to depression) among women and adolescent girls. The lifetime prevalence rate of depression among women in the United States is 17 percent and 10



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percent of women experienced depression in the prior year (Kessler et al., 1993). Adult women are nearly twice as likely to be depressed as adult men (Nolen-Hoeksema & Girgus, 1994). Dsythymia is also twice as prevalent among women as among men (Bland, Orn & Newman, 1988). Gender differences in depression emerge in early adolescence, between the ages of 11 and 15 (Kessler, et al., 1993). From 15 years of age on, girls and women have higher rates of depression than boys and men, a phenomenon that does not change until old age when gender differences in depression disappear (Kessler, et al., 1993).

Based upon an extensive review of the literature, Nolen-Hoeksema and Girgus (1994) hypothesized that gender differences in depression most likely emerge in early adolescence when gender differences in childhood depression risk factors interact with biological and social development in adolescence. Specifically, girls experience more body dissatisfaction than do boys with the onset of puberty, face an increased risk of sexual abuse, and frequently are confronted with social expectations to conform to restrictive roles deemed appropriate for females (Nolen-Hoeksema & Girgus, 1994).

There appears to be continuity between the gender differences in depression found in adolescents and the gender differences found in depression in adults. Many of the challenges that are prevalent in the lives of teenage girls continue to be challenges for adult women. For example, there is substantial evidence that social conditions tied to the status of women in society, and their relatively low power compared to men, contribute to higher rates of depression in women (Nolen-Hoeksema, 2001). Women are more likely than men to suffer physical and sexual abuse, both strongly linked to

depression (Koss, Bailey, Yuan, Herrera & Lichter, 2003). In addition, poverty, inequality and discrimination are sources of depression among women in the United States (Bell & Doucette, 2003).

Depression in adolescence is not a benign or transient condition, but is associated with serious psychosocial dysfunction and can have negative effects on functioning into young adulthood (Lewinshon, et al., 1994). For example, experiencing an episode of major depression during adolescence greatly increases the probability of becoming depressed or abusing substances as a young adult (Lewinshon, Rhodes, Klein, & Seely, 1999). Young adults who are depressed as adolescents are less likely to finish college, tend to make less money, are more likely to become an unwed parent and are more likely to experience a host of stressful life events (Lewinshon, et al., 1999).

Lesbians and Depression

In addition to the elevated risk of depression for women generally, recent findings suggest that lesbians may have an even greater risk for depressive episodes than other women (Cochran, Mays, & Sullivan, 2003). This may be because of differences in life experiences and the pervasive and harmful effects of discrimination (Cochran, 2001). In addition, there is some evidence that lesbians are at higher risk for developing alcohol dependency than heterosexual women (Cochran, Keenan, Schober, & Mays, 2000) and are more likely to engage in moderate illicit drug consumption (Cochran & Mays, 1999).

Ethnic Subgroups and Depression

Although women in other ethnic groups experience the same rates of depression as Caucasian women, they are more likely to have their depression go unrecognized (Borowsky, et al., 2000) and be inadequately treated (Wang, Berglund, & Kessler, 2000). Ethnic minority women are more likely than their Caucasian counterparts to be treated in the general medical sector rather than by specialty mental health practitioners, affecting the diagnosis and treatment of their conditions. For example, primary care physicians are most likely to diagnose depression when there are patient reports of

psychological distress and impaired functioning (Schwenk, Coyne, & Fechner-Bates, 1996). However, the evidence increasingly suggests that ethnic minority women are more likely than Caucasion women to manifest their psychological distress through somatic symptoms, rather than reporting distress or impaired functioning, increasing the likelihood of misdiagnoses in a primary care setting (Mazure, Keita, & Blehar, 2002). Degree of acculturation is also an important factor in depression rates for Latina and Asian Pacific Islander women. Women who are more highly acculturated are more likely to experience depression (Moscicki, Locke, Rae, & Boyd, 1989).

Some studies suggest that many evidence-based depression treatments can also be effective with ethnic minority women (Brown, Huba, & Melchoir, 1995; Miranda & Munoz, 1994). However, there is growing evidence that Asians, African Americans and Latinos require lower dosages of psychotropic drugs because they metabolize those drugs more slowly (Lin, Poland, & Nakasaki, 1993). In addition, there is a relatively high rate of nonadherence to psychotropic medication regimens by ethnic minority women, possibly due to medication side effects.

Depression and African-American adolescent girls

Recent research on depression in adolescents included surprising findings for African American girls, highlighting the need for more culturally sensitive conceptualizations of depression. Finkelstein, Donenberg and Martinovich (2001) investigated the relationship between maternal control and depression among clinically referred adolescent girls in an urban outpatient setting in the Midwest. They found that higher levels of maternal control were associated with less depression in African American girls, but not for Latinas or Caucasians.

The authors hypothesized that differing cultural values may explain the ethnic differences found in their sample. Since interpersonal connectedness at the family and community level is valued in African American culture (Boyd-Franklin, 1989), it may be that firmer control is more normative and less intrusive for African American girls. The authors

pointed out that a similar difference may exist for Latina adolescents, but the sample size of Latinas in the study was too small to draw any definitive conclusions.

The 1997 Commonwealth Survey on adolescent health (Schoen, 1997) found that the adolescent girls interviewed reported high levels of depressive symptoms (the range was from 17 to 30 percent), but African American girls were the least likely to report depressive symptoms or low self-confidence. Other research findings offer potential cultural explanations for these findings. While African American mothers are described as overprotective and strict disciplinarians (Green, 1990; Rickel, Williams, & Loigman, 1988), they also place less gender-stereotyped expectations on their children (Reid, 1985; Staples & Mirande, 1980). In addition, a stricter parenting style is viewed by many African Americans as necessary in order to help their children cope with the harsh realities of racism and discrimination (Julian, McKenry, & McKelvey, 1994; Taylor, Gilligan, & Sullivan, 1995).

The findings from the studies on African American adolescent girls and depression suggest that maternal control is protective against depression and perhaps, low self-confidence. This contradicts the conventional wisdom in mental health that maternal control in adolescence is associated with increased clinical symptoms. The research clearly demonstrates that the impact of parental control on depression varies for girls from different ethnic groups.

Poor, Single Mothers and Depression

Young unmarried women and their children make up the bulk of those living in poverty (U.S. Census Bureau, 2001) and mental health research consistently documents high rates of depressive symptoms among low-income mothers (Coiro, 2001; Quint, Boss, & Polit, 1997; Walker, Rodriquez, Johnson, & Cortex, 1995). Low-income single mothers and their children bear a substantial burden from depression because of the high rates of depression in this population, barriers to mental health care (e.g. lack of transportation, child care, and health insurance) and the absence of another parent to offset the effect of maternal depression on children.

The consequences of maternal depression for children are well-documented (Cummings & Davies, 1994; Goodman & Gotlib, 1999; Gotlib & Lee, 1990). Maternal depression leads to deficiencies in motor development, attachment, response to stress and emotion regulation in young children. Similarly, older children with depression have more school problems, are less socially competent and have lower self-esteem. Further, the evidence suggests that children of depressed mothers are more likely to become depressed themselves.



Mental health research consistently documents high rates of depressive symptoms among low-income mothers.



Comorbidity and Depression

Research finds evidence of comorbidity with depression for transition age women, as is generally true for males and adult women. For adolescent girls, a few specific comorbid conditions include anxiety, substance abuse and eating disorders, such as bulimia. The review of the literature by Armstrong and Costello (2002) cited earlier found 60 percent of adolescents with substance abuse disorders had a comorbid psychiatric disorder; the most common being conduct disorder followed by depression. Their research found no gender differences.

There is increasing evidence that anxiety and depression are comorbid, and are genetically associated. These findings suggest that when adolescent girls are evaluated and treated for depression they should also be evaluated for anxiety. Evaluation should also include family history of both anxiety and depression. Studies of community samples have consistently indicated that bulimia is associated with significant depression and substance abuse in adolescence (Johnson, Cohen, Kasen, & Brook, 2002; Stice, Presnell & Bearman, 2001).

Given that the comorbidity between bulimia, depression and substance abuse has been clearly established, Stice, Burton and Shaw (2004) conducted a study to identify the underlying causes and relationships. Based on a sample of 496 adolescent girls drawn from high schools in a large southwestern city, they found that depression predicted the onset of bulimia, but not substance abuse. Bulimic symptoms predicted the onset of depression, but not substance abuse; substance abuse symptoms predicted the onset of depression but not bulimia. The authors concluded that comorbidity arises because certain disorders are risk factors for other disorders (Stice, et al., 2004). In sum, if an adolescent girl has one of these three disorders (i.e. bulimia, depression, and substance abuse) she is also at risk for developing one of the other two.

Treatment for Depression

Given the potential negative consequences of depression in adolescents, effective early treatment is imperative. Early intervention can help prevent a recurrence of depression and prevent progression to more serious depression in those who are mildly depressed. Mild depression is a strong risk factor for more serious depression (Clarke, et al., 1995). Fortunately, there are efficacious treatments for depression in adolescent girls and young women. The following section describes efficacious treatments for depression in adolescent girls and young women.

Psychotropic medication

Antidepressant medications are widely prescribed for adolescents and are considered an efficacious treatment for adolescent depression. General practitioners give the majority of prescriptions. Recent evidence that treatment of depressed adolescents with antidepressants is associated with a higher risk of suicide caused the U.S. Food and Drug Administration (FDA) to issue a "black box warning." Black box warnings are issued by the FDA to highlight special problems, particularly those that are serious, and to give health care professionals information on potential medical complications and prescribing drugs that are associated with serious side effects. The new guidelines recommend that the clinical indications for treatment be clearly documented, and that all pediatric patients (under age 18) treated with antidepressants be closely observed for clinical

worsening, suicidality and other unusual behavior changes. The FDA guidelines urge close observation consisting of face-to-face physician contact with patients or their family members and caregivers at least weekly during the first month children are on the medicine, biweekly for the second month, again at 12 weeks, and then as clinically indicated. It is particularly important that if used, medication be combined with other treatment approaches as described below.

Cognitive behavioral therapy

There is a large body of evidence indicating that Cognitive Behavioral Therapy (CBT) is an efficacious treatment for young adult and adolescent depression. Research demonstrating efficacy of the intervention follows a brief description of CBT below.

The techniques employed in CBT focus on cognitive, behavioral and affect (mood) difficulties in adolescents. Cognitive techniques include: constructive thinking; positive self-talk; being your own coach; coping skills; and self-change skills, such as self-monitoring, goal setting, and selfreinforcement (Lewinsohn & Clarke, 1999). Techniques to improve family interactions include: conflict resolution, communication skills, and parenting skills (Lewinsohn & Clarke, 1999). Behavioral techniques include: problem-solving skills; increasing pleasant activities; and social skills, such as assertiveness, making friends, and role modeling (Lewinsohn & Clarke, 1999). Relaxation and anger management are the skills taught for affect management (Lewinsohn & Clarke, 1999).

All CBT programs are limited with respect to duration and number of sessions, and protocols range from 5 to 16 sessions (Lewinsohn & Clarke, 1999). CBT is delivered in both individual and group formats. Treatment is structured and most CBT programs provide an agenda for each session, which spells out the primary objectives and aims of the therapy and the content of the session, including activities and homework.

Combination Medication and Cognitive Behavioral Therapy

The Treatment for Adolescents with Depression Study Team (TADS), sponsored by the National Institutes of Mental Health (NIMH), completed a recent study demonstrating the efficacy of CBT in combination with antidepressant medication. TADS is a multicenter, randomized clinical trial designed to evaluate the effectiveness of treatments for adolescents with Major Depressive Disorder (MDD).

The TADS study compared randomly assigned groups receiving 12-week treatment with fluoxetine alone, CBT alone, fluoxetine with CBT, and a placebo (JAMA, 2004). The team found that fluoxetine plus CBT offered greater effectiveness in treatment than the drug alone. Contrary to what the study team hypothesized, CBT alone offered no greater effectiveness than placebo. Compared with fluoxetine and CBT alone, the combination therapy proved superior with a 71 percent response rate, in contrast to the usual 60 percent response rate (TADS, 2004). Most previous studies of CBT involved youth who demonstrated depressive symptoms but might not meet the diagnostic criteria for MDD.

TADS also examined the potential danger of suicide in adolescents taking antidepressants, but the findings are complex. They found that suicidal thinking decreased among all treatment groups, with the greatest reduction occurring in the group receiving the combination therapy. Although fluoxetine alone did not increase suicidal thoughts, it did seem to increase the risk for harm-related behaviors. This effect seemed to be mitigated when the drug was combined with CBT (TADS, 2004).

Treatment of depression in low-income women in ethnic subgroups

Recent study findings suggest that medication interventions may be more effective for low-income, ethnic minority women than psychotherapy interventions. Research also demonstrates that



Study findings suggest that medication interventions may be more effective for low-income, ethnic minority women than psychotherapy interventions.



evidence-based interventions appear to be more effective for poor ethnic minority women if they are given support to overcome barriers to care.

Jeanne Miranda and colleagues at Georgetown University Medical Center in Washington, D.C. conducted a randomized clinical trial with predominately low-income, young women from ethnic minority groups. Participants were randomly assigned to either an antidepressant medication intervention (trial of paroxetine switched to buproprion, if lack of response), an eight week CBT psychotherapy intervention or referral to community mental health (usual care). Bilingual providers treated all Spanish-speaking women and all written materials were available in Spanish, including psychotherapy manuals. Of the six psychotherapists, one was African American and three were Spanish-speaking. Two of the nurse practitioners were Spanish-speaking. Outreach was an essential part of the study. For example, nurse practitioners spoke with participants on average 8.8 times prior to a first medication visit and psychologists spoke with participants an average of 10.2 times before they attended a psychotherapy visit. In addition, participants were given transportation and child care funds to enable their participation (Miranda, et al., 2003).

The results showed that both the medication and the CBT psychotherapy interventions reduced depressive symptoms more than the community treatment referral. The medication intervention also resulted in improved instrumental role and social functioning, while the psychotherapy intervention resulted in improved social functioning (Miranda et al., 2003). More women engaged in a sufficient duration of treatment with medication, compared with psychotherapy, and the outcomes of care were more extensive and robust for the medication intervention. The authors found no ethnic differences in response to care, addressing to some extent the potential that existing evidence-based treatment might not be effective for African American and Latina women.

Interpersonal psychotherapy

There is a growing body of research demonstrating the efficacy of Interpersonal Psychotherapy (IPT) for the treatment of depression. IPT is a brief, highly structured, and manualized psychotherapy that addresses the interpersonal issues in depression. IPT holds that depression occurs within an interpersonal context but does not arise exclusively from interpersonal problems. In this model, depression is conceptualized as having three components: symptom formation, social functioning and personality contributions. The aim of IPT is to intervene specifically in social functioning, including interpersonal disputes, role transitions, grief, and interpersonal deficits. IPT usually runs from 12 to 16 sessions.

Two different groups of researchers have examined IPT for the treatment of adolescent depression with positive results. In a sample of clinic-referred adolescents with major depression, researchers found that IPT was associated with greater improvements in depressive symptoms, social functioning and problem-solving skills compared to the control, a clinical monitoring intervention (Mufson, Weissman, Moreau, & Garfinkel, 1999). Rossello and Bernal (1999) compared CBT, IPT and a waiting list control group in Puerto Rican adolescents meeting criteria for both major depression and dysthymic disorder. Results indicated that both CBT and IPT led to significant reductions in depressive symptoms and improvements in self-esteem in comparison to the wait list. Youth treated with IPT showed greater gains in social functioning and self-esteem when compared to the wait-list group and the effect size (magnitude of change) of IPT (.73) exceeded that of CBT (.43). It is important to note that the Mufson sample included a large proportion of Latino youth, almost 80 percent of the IPT group. It may be that IPT produces better outcomes for Latino youth but not necessarily for youth from other ethnic groups.

Researchers at the University of Pittsburg reported on a pilot study of brief IPT with depressed women. The primary aims of the study were to assess the acceptability of the intervention and to assess effect. The study employed an eight-week quasi-experimental design to compare women who received brief IPT with a matched group of women who received pharmacotherapy (sertraline) combined with supportive psychotherapy (Swartz, et al., 2004). Both groups improved significantly over time with large effect sizes and all but one of the women reported that eight sessions were sufficient to meet their needs. Client satisfaction with IPT was

high. Contrary to expectations, the women who received IPT improved more rapidly than those who received sertraline (Swartz, et al., 2004). The results from this one study suggest that time-limited psychotherapy for depression offers women rapid relief from their symptoms and may prove to be an efficacious treatment.

Suicide

Suicide is currently the third leading cause of death among 15- to 24-year olds in the United States (Lewinsohn, Rhode, Seeley, & Baldwin, 2001). Epidemiological studies suggest that the lifetime rate of suicide attempts among high school students ranges from 3 percent to 15 percent (Centers for Disease Control, 2000). Although the majority of these attempts are of low medical lethality, having made a past suicide attempt is the strongest predictor of both future suicide attempts and completions (Hawton, 1992). Youth experience higher risk for suicide if antidepressant medication has just been started, because they may have a return of energy before they have lifting of mood, and then act on suicidal urges. In addition, as noted above, antidepressant medications may present an overall higher risk of suicide for adolescents.



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Suicide incidence increases markedly in the late teens and continues to rise until the early twenties, reaching a level that is maintained throughout adulthood (Anderson, 2002). In 2000, the suicide mortality rate for 15- to 19-year-olds was 8.2 per 100,000, five times greater than the rate for 10- to 14-year-olds (Gould, Greenberg, Drew, Shaffer, 2003). Like completed suicides, suicide attempts are

relatively rare among children before puberty but increase in frequency throughout adolescence (Velez and Cohen, 1988). However, unlike completed suicides, attempts peak between 16 and 18 years of age after which there is a marked decline in frequency (Gould, et al., 2003), particularly for young women (Lewinsohn, et al., 2001).

Although suicide ideation and attempts are more common among females, completed suicide is more common among males (Grunbaum, Kann, & Kinchen, 2002). The Youth Risk Behavior Survey found that girls were significantly more likely to have seriously considered attempting suicide, made a specific plan and actually attempted suicide than were boys; however researchers found no significant difference by gender in the prevalence of medically serious attempts (Grunbaum, et al., 2002).

Risks and Protective Factors in Suicide

Research is available on the factors found to predict and protect against suicidal behaviors in adolescents. Borowsky, Ireland, and Rensnick (2001) reviewed data from the National Longitudinal Study of Adolescent Health Promotion. Cross-cutting risk factors identified in the study included previous suicide attempt, violence victimization, violence perpetration, alcohol use, marijuana use, and school problems. Additionally, somatic symptoms, friend suicide attempt or completion, other illicit drug use, and a history of mental health treatment predicted suicide attempts among African American, Latino and Caucasian females. Weapon-carrying at school and same-sex romantic attraction were predictive for all groups of boys. Perceived parent and family connectedness was protective against suicide attempts for African American, Latino and Caucasian males and females. For girls, emotional well-being was also protective for all ethnic groups studied, while having a high grade point average was an additional protective factor for all of the boys.

Researchers combined the estimated probabilities of attempting suicide with protective factors and found that the presence of any three protective factors reduced the risk of suicide by 70 percent to 85 percent for each gender and ethnic group studied. This included youth with and without identified risk factors. Promotion of protective factors may,

therefore, offer an effective approach to both primary and secondary prevention of adolescent suicidal behavior.

Racial and Ethnic Subgroups and Suicide

The incidence of youth suicide differs among racial and ethnic subgroups. Youth suicide is more common among whites than African American youths in the U.S., with the highest rates in Native Americans and the lowest rates among Asian Pacific Islanders (Anderson, 2002). The historically higher suicide rate among Native Americans is not fully understood, but proposed risk factors include access to firearms and alcohol or drug use. Studies have identified gender differences in the risk factors for Native American youth attempting suicide. For girls, knowing where to get a gun and having been in a special education class were associated with attempted suicide. For boys, being involved in a gang or having been treated for emotional problems was associated with attempted suicide (Borowsky, 1999). A recent study examining suicidality among urban African American and Latino youth demonstrates an association between ethnicity, poverty and suicide. The Reach for Health Study involved African American and Latino high school students living in economically deprived urban environments in 1999 and 2000. Among youth in the study, 15 percent reported thoughts of suicide, 10 percent had made at least one attempt, and 4.3 percent reported having made multiple attempts (O'Donnell, O'Donnell, Wardlaw, & Stueve, 2004). Students with unmet basic needs were at substantially higher risk, as were students who reported same-gender sexual behavior. Depression was also associated with increased risk. Analysis of socio-demographic data found that being female or being Latino increased the risk of suicide approximately two-fold (O'Donnell, et al., 2004).

Gay Teens and Suicide

Research reveals that gay teens are more likely to attempt suicide and many succeed. Epidemiological studies found a significant two- to six-fold increased risk of nonlethal suicidal behavior for homosexual and bisexual youth (Garofalo & Wolf, 1999). Suicide attempts were six times more

likely for gay males than heterosexual males and twice as likely for lesbians, compared to heterosexual females (Garofalo & Wolff 1999). Gay and lesbian youth account for as much as 30 percent of completed youth suicides annually (Garofalo & Wolff, 1999).



Suicide attempts were six times more likely for gay males than heterosexual males and twice as likely for lesbians, compared to heterosexual females.



Treatment to Prevent Suicide

Few studies have systematically evaluated interventions aimed at reducing suicidal ideation and behavior in adolescents and young adults. Macgowan (2004) reviewed the evidence for treatment of adolescent suicidality, classifying treatments by the level of empirical support. Of the ten empirical studies reviewed, only two met the criteria for probably efficacious (Macgowan, 2004). While neither of the treatments was gender-specific, in both cases the largest number of participants was female.

In a randomized clinical trial involving youth who had deliberately harmed themselves in the prior year, group therapy and routine care were compared with routine care alone (Wood, Trainor, Rothwell, Moore, & Harrington, 2001). Group treatment was characterized as "developmental group psychotherapy" and included elements of problem-solving, cognitive-behavioral therapy, dialectical behavior therapy and psychodynamic group psychotherapy. Group treatment comprised an initial assessment phase, attendance at six acute group sessions oriented around these themes: relationships, school problems, peer relationships, family problems, anger management, depression and self-harm, and hopelessness and feelings about the future. This phase was followed by weekly group treatment in a long term group until the youth

felt ready to leave. Routine care consisted of a variety of interventions including family sessions, nonspecific counseling and psychotropic medication.

At the seven-month interview, results showed that youth who participated in group therapy were less likely than those in routine care to have repeated deliberate self-harm. The group treatment reduced the risk of a second episode of self-harm by 26 percent. Youth in the program were also less likely to need routine care, had better school attendance and had a lower rate of behavioral problems than those receiving routine care. However, group treatment did not reduce depression or suicidal thinking (Wood, et al., 2001)

Harrington and colleagues examined the effects of a home-based intervention that included problem-solving and communication (Harrington, et al., 1998; Kerfoot, Harrington and Dyer, 1995). The study involved 162 adolescents who had deliberately poisoned themselves and who were randomly assigned to routine care alone or routine care plus the home-based intervention. The intervention consisted of an assessment session and four home visits by MSW social workers who directed family communication and problem-solving sessions. Routine services consisted of visits to the clinic by youth and their families who received a diverse range of interventions. Outcomes were assessed at two and six months.

At posttests, there was no significant difference in hopelessness or suicidal ideation between the intervention and control groups. Youth who had attempted suicide but did not meet the diagnostic criteria for major depression had significantly lower suicidal ideation than the control group (Harrington, et al., 1998)

Eating Disorders

Females comprise the majority of individuals diagnosed with an eating disorder—anorexia nervosa, bulimia nervosa and binge eating. Eating disorders often co-occur with depression, substance abuse and anxiety disorders and can cause serious health problems. Research on the causes of eating disorders and on effective treatments is in the early stages. There have been some studies (reviewed later in this section) that have demonstrated good outcomes for the treatment of anorexia and bulimia.



Eating disorders often co-occur with depression, substance abuse and anxiety disorders and can cause serious health problems.



Eating disorders, such as anorexia nervosa and bulimia nervosa, primarily affect girls, but rarely manifest before puberty. Adolescent girls are at greater risk than those of other ages for developing an eating disorder. Prevalence estimates for adolescents and young adults have run as high as 0.5 – 1.0 percent for anorexia (Hoek, 1991) and 1-3 percent for bulimia (Garfinkel et al., 1995), but general population epidemiological studies tend to show lower rates. Studies using community samples indicate that the incidence of eating disorders (anorexia and bulimia) is less than 2.8 percent by age 18 and 1.3 percent for ages 19 through 23 (Lewinsohn, Striegel-Moore, Seeley, 2000.). However, for females ages 15-24 diagnosed with anorexia, the mortality rate is more than 12 times the annual death rate for females in their age group from all other causes (Sullivan, 1995).

In addition, comorbidity is the rule rather than the exception. Eighty-nine percent of young women meeting the diagnostic criteria for one or more eating disorders demonstrate a comorbid condition, usually depression (Lewinsohn, et al., 2000). Because risk is associated with the developmental period of adolescence and young adulthood and because the consequences, if not treated, can be dire, accurate assessment and treatment of eating disorders is crucial.

Racial and Ethnic Subgroups and Eating Disorders

In general, there are inconsistent findings concerning ethnicity and eating problems; some studies demonstrate that Latinas are diagnosed with eating disorders as frequently as are Caucasian females, while others suggest lower rates for Latinas. Studies routinely find African American girls to be

more satisfied with their bodies and to show fewer eating problems and disorders than white or Latina girls (Striegel-Moore, Wilfley, Pike, Dohm, & Fairburn, 2000). Recent study findings suggest that acculturation plays a significant role in moderating the risk for eating disorders for Latinas (McKnight, 2003). Specifically, the more likely a girl is to identify herself as Latina American, the less likely she is to develop an eating disorder.

Risks and Protective Factors

Risk factors for eating disorders emerge from family and parenting issues related to physical development in childhood and adolescence.

Parents who are themselves overweight, and focused on their own weight, are more likely to be concerned about their children's physical appearance and instruct their children to diet (Pike, 1995). Research has consistently demonstrated that eating disorders tend to "aggregate" in families: having a female family member with an eating disorder significantly increases the risk for an eating disorder in girls (for review, see Lilienfeld and Kaye, 1998).

Several studies have shown that familial factors or life events that potentially threaten the development of a secure attachment are risk factors associated with eating disorders. Prolonged parentchild separation, unempathetic parenting style, lack of family cohesion and parental mental illness have been found to be more common in women with an eating disorder than among healthy women (Cachelin, et al., 1999). Women with eating disorders have higher rates of childhood physical and sexual abuse than women who do not experience an eating disorder (Striegel-Moore & Kearney-Cooke, 1994). Abusive parenting and sexual abuse are not specific risk factors for eating disorders but are correlated with many mental health problems, including eating disorders. In other words, an eating disorder may be one of the consequences of having been physically and or sexually abused.

Physical development issues can increase the likelihood of an eating disorder. Early sexual maturation increases the risk for a wide range of affective and behavioral problems, including disordered eating (Stattin & Magnusson, 1990). Attie

and Brooks-Gunn (1989) argued that the single biggest impact of early sexual maturation is body image dissatisfaction. Childhood obesity has also been found to increase the risk for the development of bulimia but not anorexia (Fairburn, et al., 1997).

Three broad sets of variables act as protective factors contributing to adolescent resilience against developing eating disorders (as well as other mental disorders). Personal characteristics include intelligence, strong self-concept or sense of identity, feelings of self-efficacy, an easy temperament and good coping skills. Family variables include adequate financial and material resources, a positive family environment and a positive relationship with one's parent or primary caregiver or both. Social context factors include social support and opportunities for change and growth (see reviews by Kimchi & Schaffner, 1990; Wicks-Nelson & Israel, 1997).

Treatment for Eating Disorders

To date there have only been three controlled studies demonstrating the efficacy of intervention approaches for eating disorders.

An NIMH clinical trial found that CBT was superior to Interpersonal Therapy (IPT) in reducing the symptoms associated with bulimia. In addition, a higher percentage of CBT participants met community norms for eating attitudes and behaviors. CBT produced clinical gains more quickly than IPT and was efficacious with a larger percentage of participants, who also maintained treatment gains (Agras, Walsh, Fairburn & Wilson, 2000).

A second controlled trial found that both vomiting and bingeing in bulimia were clinically improved by treatment with fluoxetine or a manual-based behavioral program. A combination of the two approaches led to the greatest improvement. The effects of the two treatments appear to be independent and additive (Mitchell, et al., 2001).

The third study evaluated the efficacy of Dialectical Behavior Therapy (DBT) adapted to the treatment of binge eating. The treatment, based on an affect regulation model of eating disorders, aimed to replace disordered eating behaviors with emotion-regulation skills. Compared with controls,

women treated with DBT showed decreased binge eating and eating problems, and 89 percent stopped binge eating by the end of treatment. Abstinence from binging was reduced to 56 percent by the sixmonth follow-up (Telch, Agras & Linehan, 2001).

Premenstrual Dysphoric Disorder

Premenstrual Dysphoric Disorder (PMDD) is diagnosed in approximately 5 percent of menstruating women. PMDD is distinguished from the more common premenstrual syndrome (PMS) by more severe symptoms and associated functional impairments. New research demonstrates that women with PMDD have functional disabilities similar to those found with other mood disorders such as depression and dysthymia (Perlstein, et al., 2000).

Randomized controlled trials of PMDD consistently show that selective serotonin reuptake inhibitor (SSRI's) antidpressants are beneficial in treating symptoms (Dimmock, Wyatt, & O'Brien, 2000; Steiner, 2000). Research indicates that treatment of PMDD is efficacious if medication administration is limited to the luteal phase (the days following ovulation) of the menstrual cycle. This strategy can be of benefit to women since costs and side effects are thereby limited (Mazure, et al., 2002). The current research on PMDD does not offer alternatives to medication such as psychotherapy.

Psychiatric Disorders During Pregnancy

Researchers are currently studying the special problems of treating serious mental illness in women during pregnancy, including transition age women who become pregnant. Although the effect of psychoactive drug treatment on the fetus during pregnancy has received some attention, information about the effectiveness of different pharmocotherapies is still limited. A recent prospective study of newborns whose mothers were treated with Selective Serotonin Reuptake Inhibitors (SSRI's) show that their infants demonstrate disruption in a wide range of neurobehavioral outcomes including motor activity, startle and heart rate regulation

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(Kallen, 2004). The American Academy of Pediatrics, Committee on Drugs (2000) developed research-based guidelines, including the effects of specific drugs on the fetus and newborn, to assist physicians with appropriate drug selection for women who are either contemplating pregnancy or are pregnant and who have psychiatric disorders.

Postpartum Depression

Postpartum Depression (PPD) typically emerges over the first two-to-three postpartum months, but may occur at any point after delivery. Women who may be at risk for developing PPD are those with a previous episode of PPD, a history of depression or bipolar disorder, recent stressful life events, inadequate social supports, marital problems and those who experienced depression during pregnancy (Brockington, 2004).

Non-pharmacological therapies are useful in the treatment of PPD. Therapy without medication can be an important consideration for women who are breast feeding and unwilling to take medication because of potential harm to their babies. A randomized controlled trial demonstrated that short-term cognitive-behavioral therapy was as effective as treatment with fluoxetine in women with postpartum depression (Appley, Warner, Whitton, & Fairagher ,1997). In addition, Interpersonal Psychotherapy (IPT) has been shown to be efficacious for the treatment of mild-to-moderate PPD. IPT was effective in reducing depressive symptoms and improving social adjustment (O'Hara, Stuart, Gorman, & Wenzel, 2000). In addition, a recent postpartum depression efficacy study showed both a mother-infant psychotherapy group and interpersonal psychotherapy to be superior to a wait-list comparison in reducing maternal depressive symptoms and increasing mother's positive affect and verbalization with their infants (Clark, Tluczek, & Wenzel, 2003). To date, only a few studies have systematically assessed the pharmacological treatment of PPD. In general, conventional antidepressant medications (fluoxetine, sertraline, fluvoxamine and venlafaxine) have been shown to be efficacious in the treatment of PPD (Appley et al., 1997; Cohen, et al., 2001; Suri, Burt, Alsthyler, Zuckerbrow-Miller, & Fairbanks,

2001). In all of these studies, standard doses were effective and well tolerated by participants.

Young Mothers and Psychiatric Disorders

Under the best of conditions, parenting can be stressful for most mothers. However, for a young woman with mental health problems, parenting may overwhelm her coping capacities and result in poor outcomes (including abuse and neglect) for her children. Intervention to help her manage her mental health symptoms and increase her parenting competencies decreases the risk of negative consequences for both mother and children.

Research consistently demonstrates that children of mothers with mental health problems are more likely to live in poverty than children born to mothers without mental health problems and are also at risk for developing mental health problems. In addition, the research on depression demonstrates that single, low-income women bear a greater burden of depression than women who are not mothers.

One treatment program, the Nurse-Family Partnership Program, demonstrates good outcomes for young mothers and their children. The key components of the program include: (a) the program focuses on low-income, first-time mothers; (b) nurses follow program guidelines focusing on the mother's personal health, quality of caregiving for the child, and the mother's own life course development; (c) nurses begin making home visits during pregnancy and continue through the first two years of the child's life; (d) nurses follow a visiting scheduled keyed to the developmental stages of pregnancy and early childhood; (e) nurses involve the mother's support system and link mothers to other health and mental health services they may need; (f) each nurse carries a caseload of no more than 25 families; and (g) the program is located in and run by an organization known in the community.

The Nurse-Family Partnership Program has been shown to produce consistently good outcomes for low-income women and their children through the child's fourth year of life. In comparison to



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control groups, women who received services from the Nurse-Family Partnership program, had better prenatal health, lower use of cigarettes, reduced injuries to their children, and lower rates of subsequent pregnancy and less use of income assistance (Olds, et al., 1997; Olds, et al, 1998).

A 15-year follow-up of women and their now adolescent children in the Elmira, New York Program found the following effects for the mothers: (a) 79 percent reduction in child abuse and neglect, (b) 44 percent reduction in maternal behavioral problems related to use of alcohol and drugs, and (c) 69 percent fewer arrests among young mothers. In addition, the project found the following results for the 15-year old children of mothers who participated in the program: (a) 54 percent fewer arrests and 69 percent fewer convictions, (b) 58 percent fewer sexual partners, and (c) 28 percent fewer cigarettes smoked and 51 percent fewer days consuming alcohol. The program also saved four dollars for every dollar invested (Olds, et al., 1997; Olds, et al., 1998). More information about this program can be found at http://www.nccfu.org

Gender and Attention Deficit Disorder With Hyperactivity

Attention Deficit/Hyperactivity Disorder (AD/HD) is a prevalent child psychiatric disorder for which efficacious pharmacological and psychological treatments have been established (Bussing, Zima, Gary, & Garvan, 2003). Nevertheless, several studies indicate that girls and children from ethnic minority backgrounds are

significantly less likely to receive AD/HD treatment, including psychotropic medications, than are boys and Caucasian children respectively (Bussing, Zima, & Belin, 1998; Zarian, Suarez, Pincus, Kupersanin, & Zito, 1998; Zito, Safer, desReis, Magder, & Riddle, 1997). Research findings from several recent studies offer some explanation for these observed differences in treatment of AD/HD.

There is a substantial discrepancy in the male-to-female ratio between clinic-referred samples and community samples of children with AD/HD; boys outnumber girls 10 to 1 in clinical samples, but only 3 to 1 in community samples. These findings suggest that girls may be referred to clinical treatment less often and raises questions as to whether there may be gender differences in the behavioral manifestations of AD/HD (Biederman, et al., 2002).

Two recent studies examined gender differences in behavior among children diagnosed with AD/HD. The results of these two studies strongly suggest that differences in behavioral manifestations of AD/HD could result in gender-based referral bias unfavorable to girls.

Biederman, et al. (2002) systematically compared boys and girls ages 6–17 with and without AD/HD on multiple domains of functioning. The results indicated that girls with AD/HD were more likely than boys to have the predominantly inattentive type of AD/HD, less likely to have a learning disability and less likely to manifest problems in school or in their unscheduled or free time. In addition, girls with AD/HD were less likely to exhibit comorbid major depression, conduct disorder and oppositional defiant disorder than boys with AD/HD (Biederman, et al.). The authors did find that AD/HD in girls was a more serious risk factor for substance abuse disorders than it was in boys.

Abikoff, et al. (2002) provided additional corroboration for differences in behavioral manifestations of AD/HD between males and females. Using baseline observational data from the NIMH MTA study (MTA Cooperative Group, 1999a, 1999b), investigators examined gender and comorbidity differences in the observed classroom behavior of children with AD/HD. The most significant finding between boys with AD/HD and girls with AD/HD was that girls with AD/HD had

relatively high rates of verbal aggression toward other children, whereas boys engaged in more rule breaking and externalizing behaviors (Abikoff, et al., 2002). The higher rates of verbal aggression with other children among girls with AD/HD were in marked contrast to their lower rates of physical aggression and verbal aggression with the teacher. The occurrence of aggression toward the teacher observed during 16 minutes of structured classroom activities was extremely low (Abikoff, et al. 2002). It is possible that instances of verbal aggression occur more often during less structured school activities when adult supervision is minimal.

Treatment for AD/HD

There is a paucity of data regarding the efficacy of medications for the treatment of AD/HD in girls. The limited published literature suggests that psychostimulant treatment is equally effective in boys and girls with AD/HD (Biederman et al., 2002). A large-scale randomized clinical trial recently assessed the efficacy of atomoxetine in school-age girls with AD/HD. Biederman, et al. (2002) reported that atomoxetine was superior to placebo in reducing the core symptoms associated with AD/HD (inattention and impulsivity) and that the medication was well tolerated by the research participants.

What the Evidence Suggests

This report reviewed the available research on the mental health conditions affecting adolescent girls and young women and the literature supporting the most promising psychosocial and psychopharmacological interventions to treat those conditions. The review found that there are relatively few studies focused on the special issues and treatment needs of these transition age women. Where treatments and interventions have been designed for adolescent girls and young women, they are in the early stages of implementation and analysis. The evidence presented here suggests that transition age women experience all of the mental health problems common in adult women, and affecting young men, to some extent, and may experience higher rates of some disorders, such as

depression, suicidality and eating disorders. In addition, the literature review revealed the following:

- Understanding developmental stages and milestones is a prerequisite for effective mental health interventions for adolescent girls and young women. Clinicians who work with young women not only need to address the presenting problem but also the normative skills their clients may have failed to develop as a consequence of having an emotional or behavioral disorder during this critical developmental phase.
- Trauma is implicated as a risk factor for most of the psychiatric diagnoses affecting young women. Therefore, treatment of adolescent girls and young women should include screening for past and present trauma exposure. Treatment for trauma-related symptoms should be provided in addition to treatment for a specific mental health diagnosis or problem.
- More girls are becoming involved in the justice system, at younger ages, and some for more violent offenses. The delinquent behaviors that propel these women into the justice system often can be traced to trauma and the aftermath of trauma. Girls from ethnic minority groups are disproportionately represented, and female delinquents have fewer mental health placement options than their male peers in the juvenile justice system.
- Transition age women may not be accessing mental health treatment to the same degree as their male peers, despite clear evidence that they experience many of the same mental health challenges.
- Comorbidity is the rule rather than the exception. Assessment for any one of the disorders reviewed in this report should include assessment for all others. Particular attention should be paid to the relationship between depression and substance abuse.
- There are specific risk and protective factors for most of the mental health conditions affecting young women. Understanding these factors can improve prevention, identification, diagnosis and treatment for girls in this important life stage.

- The high incidence of comorbidity, the correlation between mental health problems and trauma and the complex array of risk and protective factors affecting the mental health status of young women combine to make a compelling case for integrated service and treatment programs.
- There are unique issues and challenges for young women in ethnic and cultural subgroups, often necessitating specialized research, assessment and treatment approaches.
- Treatments that are effective or efficacious in young men or adults may or may not be similarly effective for young women. Further research is needed on the most effective treatments to meet the unique mental health needs of transition age women.

Recommendations

Based on the evidence reviewed for this report, the following general guidelines are offered for policy makers and practitioners responsible for providing services to transition age young women. The findings of this report call for interventions that:

- Are supported by evidence from controlled scientific studies;
- Have the greatest potential to support successful completion of key developmental tasks, including the development of high quality friendships, prosocial behavior and academic or vocational success;
- Promote connectedness to community and family or supportive adults outside of the family; and
- Improve coping skills and self-efficacy for adolescent girls and young women.

In addition to these general guidelines, the WMHPC makes the following specific recommendations:

Recommendation 1: Integrate mental health and substance abuse treatment services

The evidence clearly demonstrates a strong relationship between trauma exposure, mental health problems and substance abuse. The rates of comorbidity are stunning and argue for simultaneous rather than sequential treatment. Treatment provided in one agency rather than multiple agencies is likely to produce better outcomes. At the very least, mental health clinicians and substance abuse counselors should be crosstrained to provide or make appropriate referrals to comprehensive screening for Posttraumatic Stress Disorder, Major Depression, suicide risk and substance abuse.

Recommendation 2: Provide gender-specific programming for young women in the juvenile justice system

The evidence suggests that adolescent girls entering the juvenile justice system bring with them complex health and mental health needs related to trauma histories, including childhood abuse and current partner abuse, sexual behavior and substance abuse. Services for girls in the juvenile justice system should include treatment for depression, traumatic stress, substance abuse and health-risking sexual behaviors. In addition, many girls who enter the juvenile justice system are pregnant or are already parents. Providing services that improve their parenting competencies decreases the stress associated with parenting and increases the likelihood that their children will have the social and emotional competencies required for success in school and in adulthood.

Recommendation 3: Provide training to all gateway service providers working with adolescent girls and young women

Research shows that a primary predictor of mental health service provision is the knowledge level of gateway service providers—child welfare, juvenile justice, primary health and education providers—on mental health problems, symptoms and resources. Gateway professionals need the information and the tools to recognize risk and protective factors, identify mental health symptoms early and make appropriate referrals. For example,

teacher training should include information on the distinct behavioral manifestations of Attention Deficit /Hyperactivity Disorder (AD/HD) in girls, particularly AD/HD Inattentive type. Teachers can be trained to recognize that verbal aggression may be a distinctly different indicator of the presence of AD/HD in girls than the more physically aggressive behaviors that signal AD/HD in boys.

Recommendation 4: Provide specialized treatment programs for transition age mothers

Transition age young women who are mothers are likely to be single parents, living in poverty and without adequate social support. The barriers to mental health care are greater for low-income single mothers because of the additional burdens of parenting without a partner. The children of these young mothers are at risk for abuse and neglect and for developing serious emotional and behavioral problems, especially depression. Specialized treatment programs need to be available for young mothers and should also include the support services necessary for them to participate in treatment, such as transportation, child care and parenting training.

Recommendation 5: Provide specialized training for clinicians working with adolescent girls and young women

Transition age women have unique developmental and gender-specific challenges, risk and protective factors and manifestations of mental health problems. The available research reveals important diagnostic and treatment implications for girls in this important developmental stage. In addition, existing research reveals differences among racial and ethnic subgroups of young women and highlights the need for specialized treatment programs and services. Mental health clinicians should receive evidence-based training and education leading to culturally competent, genderappropriate mental health service delivery.

Recommendation 6: Increase funding for mental health treatment research specific to transition age women and subgroups of transition age women

This review repeatedly illustrates the paucity of evidence-based mental health research specific to females and to transition age women. Moreover, there is only limited research on the specialized mental health needs of racial, cultural and ethnic subgroups among transition age women. Further targeted research is needed. It is critical that gender and ethnicity become routine variables in research projects and a component of all data collected, analyzed and published by funding agencies.

Conclusion

This review highlights the significant mental health problems that can affect transition age women as they move through adolescence to adulthood. The available research provides important insights into the types of mental health conditions young women face as well as treatments and programs known to be effective. Ultimately, however, the research on their unique treatment and service needs is so far inadequate and more research is needed. In the meantime, this overview should serve as a guide for decisionmakers, professionals and mental health practitioners working with and developing services for young women.

ⁱ For an excellent analysis of the issues facing transition age youth with severe emotional and behavioral disorders, see the work of Hewitt Clark and Maryann Davis (Clark and Davis, 2000)

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